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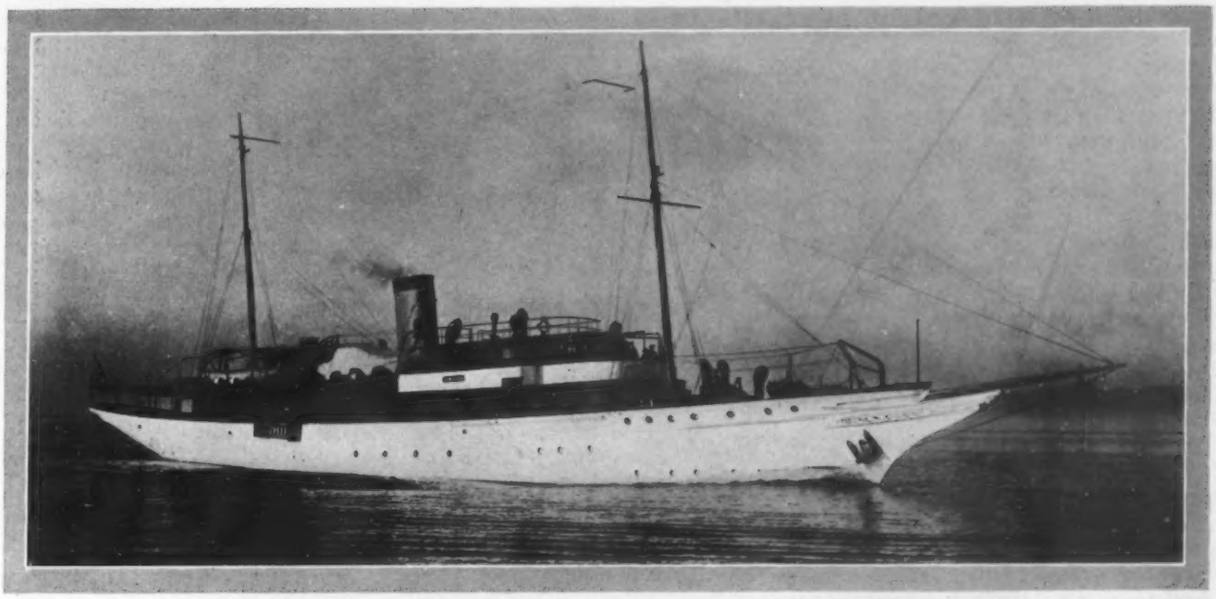


The new 195-foot Diesel yacht *Amida*, owned by Ernst R. Behrend, of Erie, Penna. Cox & Stevens were the designers. On her maiden voyage in April she distinguished herself by picking up the crew of a schooner who had been adrift in an open boat for 8½ days.

Yacht *Amida* Rescues Crew of the *James E. Coburn*

On Her Maiden Voyage This Diesel Cruiser Picks Up Shipwrecked Crew in the North Atlantic

By CAPTAIN S. L. MACLAUGHLIN, *Master*

THE new Diesel yacht *Amida*, owned by Ernst R. Behrend, of Erie, Pa., left her builder's yard at Kiel, Germany, on her maiden trip to the United States on March 31st, Easter Sunday. April lived up to its tradition in the North Sea, and off Borkum Riff Lightvessel it breezed on and was soon blowing a fresh gale, kicking up a nasty, short, but deep, quartering sea. We spent a few anxious moments during the night before the yacht's performance confirmed our faith in the architect's stability computations. This blow stayed with us as far as Southampton, where we arrived at 2:00 A.M. April 2nd.

Amida passed out Needles Channel at 5:00 P.M., April 11th, bound for New York. It was then blowing a fresh breeze which soon increased to moderate gale force. This breeze we carried fair and without moderating for the full length of the English Channel. When crossing the Bay of Biscay the wind gave us a fine two-day exhibition of backing and veering, and kicked up an uncomfortably rough, confused sea which shook us up considerably. When abreast of Cape Finisterre it had increased to full gale force, and we hove *Amida* to with the wind on the starboard bow and only the port engine turning slow ahead. The seas would qualify as mountainous, not only as seen from the deck of a yacht, but even from the bridge of the largest liner. During the ensuing 24 hours, *Amida* convinced us of her abilities. She has the climbing ability of a Rocky Mountain goat combined with the dryness of a duck.

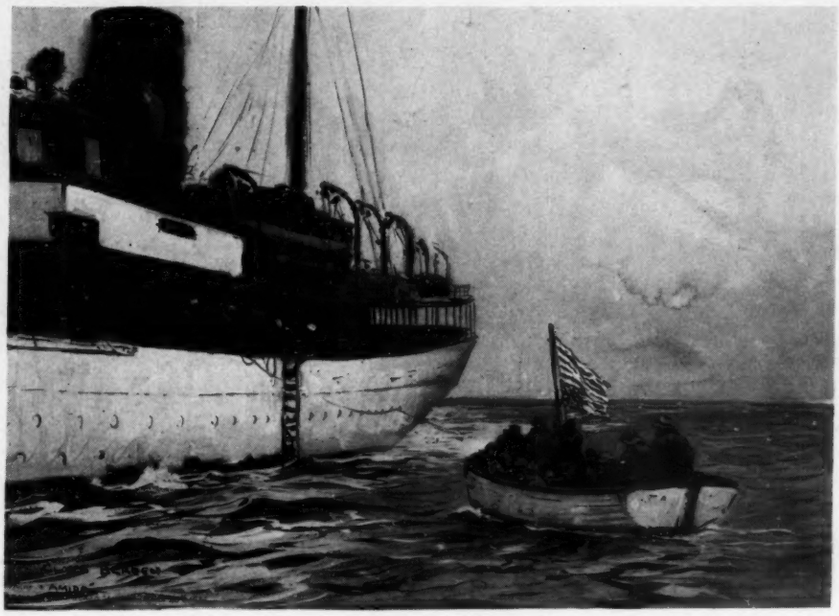
The following days, until the evening of April 24th, were a monotony of gales. At times we were able to proceed at fair speed; at others at reduced speed, or hove-to. At four in the afternoon of the 24th we felt we had run our westing down and could haul up for Sandy Hook. This course alteration would give us a bad quartering sea which we did not care to risk unnecessarily with three large fuel and water tanks nearly empty, but not yet ready for sea water ballast. Since wind and sea showed signs of moderating, it was decided to hold on to the westward until four next morning.

At 4:00 A.M., on the 25th, the weather was fine, but we refrained from altering course until our position could be ascertained from star observations. After plotting the position, and while in the act of setting "Metal Mike" on the new course, we sighted a small ship's boat a point on the starboard bow and about two miles away. The first examination with a glass showed the boat to be filled with men, but no sign of life. Coinciding with our change in course toward them, there was a movement among the men in the boat and an inverted American ensign was raised on an oar. They had great difficulty in keeping this upright, but they persisted even after we had laid the yacht alongside.

The occupants of the boat were in an extremely exhausted condition and all but one seemed in a stupor. Our questions as to their vessel and the existence of other boats from her showed this man to be the Master, Cap-

tain José Pereira, and the lost vessel the American four-masted schooner *James E. Coburn* of New Bedford. The men were too weak to make fast the lines thrown them but, finally, with the assistance of *Amida's* crew, they were all brought aboard. They were the ten living members of the *Coburn's* crew. One, William Sargeant, the cook, had been unable to withstand the privations of the ordeal and had died during the previous night. He was buried from the *Amida*, with the usual services, an hour after being taken aboard.

Immediately after being taken aboard the men were placed on a very limited diet of food and water for the first 24 hours. In some cases boots and clothing had to be cut from their bodies. All had badly swollen feet and hands, and some were chafed from the salt and the constant motion of their boat. Antiseptic baths and the care of *Amida's* stewards soon had them on the way to recovery.



The rescue of the *Coburn's* crew, adrift on the Atlantic for 8½ days. From a painting by Claus Bergen, a passenger on the *Amida*.

We first reported nine survivors because Captain Pereira, while still in the boat, had reported nine living members of his crew. He had forgotten to include himself. Subsequent conversation with those in his command revealed this as characteristic, since he had failed to include himself in the last several rations of food and water in order to leave more for the weaker men.

The experiences of this crew during their eight and one-half days in the *Coburn's* boat could be truly related only by one of its members, and this all were reluctant to do. Captain Pereira's account was very brief and was substantially as follows:

"The *James E. Coburn* was a four-masted schooner, 189 feet long, of 987 gross registered tons. We passed out the Virginia Capes on April 12th, with a 1,200-ton cargo of coal from Baltimore for Martinique. On April 15th we ran into our first bad weather. Starting northeast and working up to full gale force, the wind hauled to southeast, then southwest. The vessel opened her seams while laboring in this sea. The pumps took care of the leaks for a time, but coal dust eventually clogged the pump strainers and the water gained.

"At noon on the 17th there was 14 feet of water in the forward holds and 10 feet aft. By 2:30 P.M. we knew we had to abandon ship and we provisioned our only boat and had soon left her."

Members of the crew related that the Master and two men had remained on board to set a headsail and throw her athwart the sea to provide the necessary lee to launch the boat successfully, and had only saved their lives by a fortunate jump for the boat after she was in the water. The *Coburn* disappeared before dark that evening.

Of the first few days in the boat they had little to say beyond the arduous labor of bailing and keeping their little craft stern to the seas by means of their three oars and a sail improvised from a blanket. They were seldom clear of gales during all this period, and their blanket sail was constantly being carried away. Nevertheless, they succeeded in working their boat to within 85 miles of Bermuda at one time, only to be blown north again by another gale.

At the end of the fourth day the supply of tinned food was exhausted, and the biscuit in the boat had been soaked by sea water and could not be eaten. Then their hardship was further aggravated when the water was exhausted on the fifth day.

During the evening of the sixth day they sighted a steamer about two miles away, but were unable to attract her attention because a sea extinguished their flare. A gale was blowing at the time, and it is doubtful if they could have been picked up if sighted.

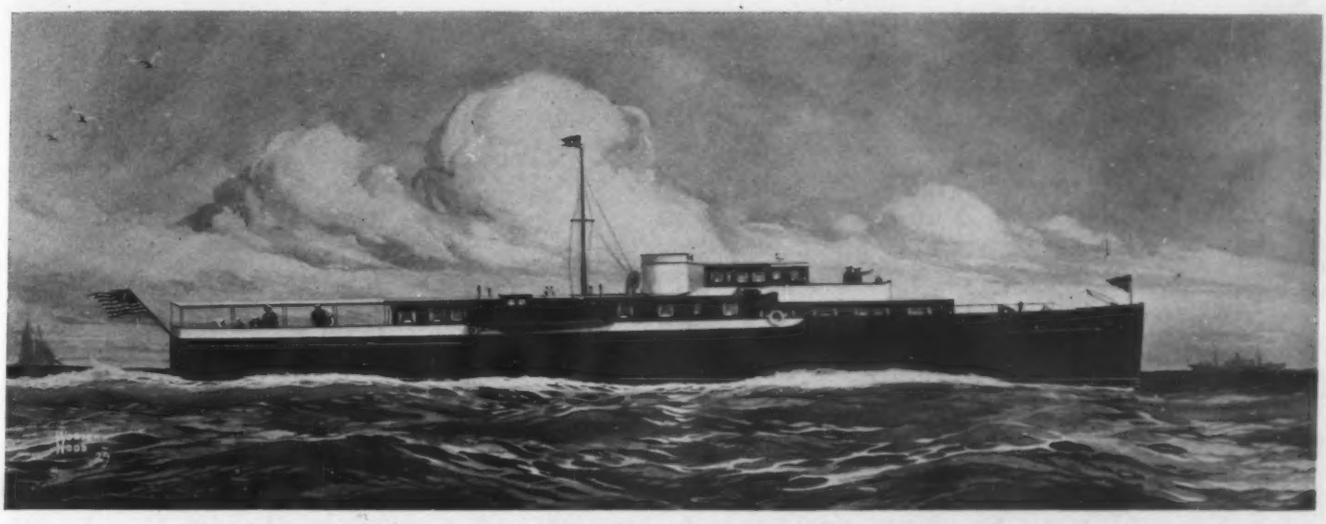
During the eighth night in the boat several members of the crew became delirious, among them the cook, who died shortly afterward. The fact that Captain Pereira could maintain discipline during this crisis is a tribute to his ability, and that he did maintain discipline was quite evident to us when we sighted the boat shortly after daybreak the following morning.

A further tribute is due Captain Pereira for his navigation. Until becalmed during the preceding night he had been sailing due south, hoping to make Bermuda, and our observed position placed him on the meridian of Bermuda, but 150 miles north of it.

A series of coincidences led to our being successful in picking up this crew. First, that we should have been following this particular course was due only to the persistent bad weather over the usual low-powered westbound track, causing us to hold to the northward. Second, a bad sea on the preceding evening caused us to hold to the westward after reaching a point where we should have hauled north for New York. Third, the continued holding to the westward until after observations were obtained. Fourth, and principally, that after 12 days of gales, we should have encountered a temporary calm and a smooth sea at the moment we sighted the boat.

By four in the afternoon of the same day, we were forced from our northerly course by an increasing gale and sea. By midnight we were hove to in the worst gale of the trip, with a wind force of 10, rising to 11 in squalls, and *Amida* took a 24-hour beating which tested her every fiber. Her designers may well be proud of *Amida*, and her crew have full confidence in her.

Amida anchored at quarantine, New York, at 3:00 P.M., April 28th. Throughout the voyage the *Amida* behaved admirably. The time of 17 days from Southampton was very creditable considering the long Southern route followed and the continuous heavy weather encountered.



The development of the lighter weight Diesel motors has made this type of power available for the fast cruiser. *Avalanche*, a 154-footer now building from designs by Tams & King, is one of the largest of these express Diesels. She is for Mr. Anson W. Hard, of the New York Yacht Club. Two Winton motors of 600 h.p. each are expected to give a speed of 19 miles per hour.

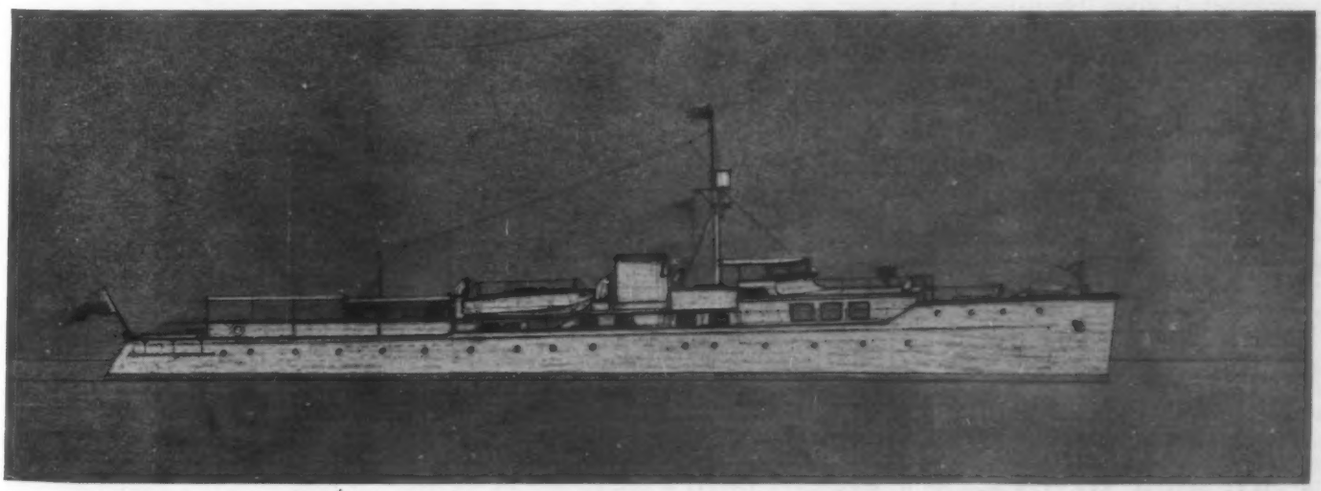
The Development of the Express Diesel Yacht

Changes in Engine and Hull Design Are Bringing a New Type of Fast Cruiser

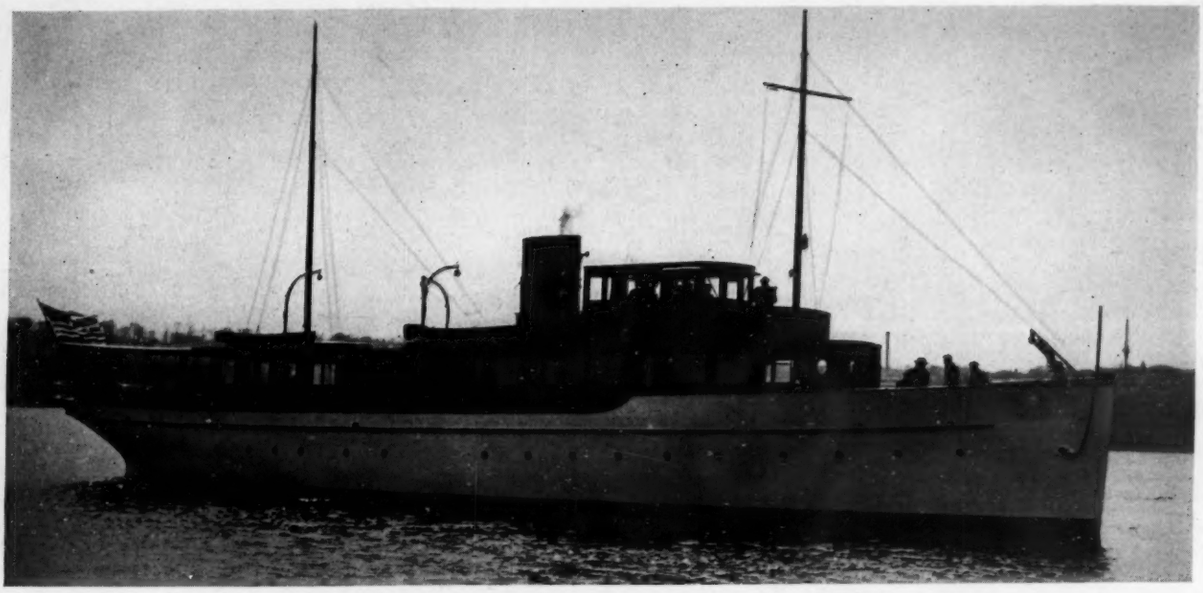
By Albert W. Crouch

THE Diesel motor may be defined in few words as an internal combustion engine using some one of the lower grades of crude oil, which, on being injected into the cylinder at the proper period of the stroke, is ignited by the heat of compression in the cylinder. Although the general principle of the Diesel engine was invented by Dr. Rudolph Diesel in 1892, little real progress was made in the commercial development of the Diesel engine until about 1912, largely by reason of certain patent rights. Even up to and during the period of the World War, no really successful installations of Diesel engines were made in this country in pleasure yachts. Since 1918, however, in the short period of some ten years, phenomenal strides have been made in the development of Diesel power units, not only for stationary work of all kinds, and commercial marine installations, but also in the ever increasing pleasure yacht field.

Today we have this principle applied to both two- and four-cycle types, in single or double acting machines, with many kinds and methods of injection of the fuel. The two general divisions of injection in the full Diesel engines at present are, first, the air injection type which sprays the fuel into the cylinder by means of high pressure air; and, second, the airless or solid injection type in which the fuel is forced into the cylinder by high pressure fuel oil pumps without the aid of air pressure. We have, also, the so-called semi-Diesel types which have lower compression pressures and obtain their ignition by a hot bulb, or fins, in the cylinder head, which, under operation, hold the heat necessary for ignition.



Another fine example of the sport cruiser is this 122-footer building at George Lawley & Sons, for Frank H. Goodyear, of Buffalo, from designs by H. J. Gielow, Inc. She is a radical, but pleasing departure from the conventional design. Power will be furnished by two 8-cylinder Bessemer Diesels, giving a speed of 16 miles per hour.



Another type of fast Diesel cruiser than those on the preceding page is the *Percianna,* a handsome and roomy 120-footer owned by Percy L. Hance, of New York, and recently launched from the yard of her builders, the J. M. Densmore Co., Inc., Atlantic, Mass. The designs are by Tams & King. Two 8-cylinder Winton solid injection Diesels gave a speed on her trial run of 14½ knots, at 750 r.p.m.

The first really successful installations of Diesel power in yachts were, with few exceptions, in the larger steel cruising yachts. This led to the development of a new type of hull, with a plumb bow and short steamer stern, in great contrast to the graceful, older steam yachts. The many advantages of Diesel power for large yacht use were immediately evident, and could not be set aside, even in these earlier boats. Economy of space required for machinery in a yacht might be considered one of the greatest advantages of Diesel power over steam. This, of course, the gasoline engine had already accomplished within its size range. Again, we have that ever persistent urge for economy. This was made possible not only in the great difference in cost of fuel oil as compared with gasoline, but also in the smaller consumption of fuel per horse power required, making the Diesel engine supreme from point of fuel economy. With this, in turn, we get a greatly increased cruising radius on an equal amount of fuel.

Two other of the many strong appeals the Diesel makes over both the gasoline and steam types, are reduced fire hazard and ability for continuous operation at full rated power over long periods of time.

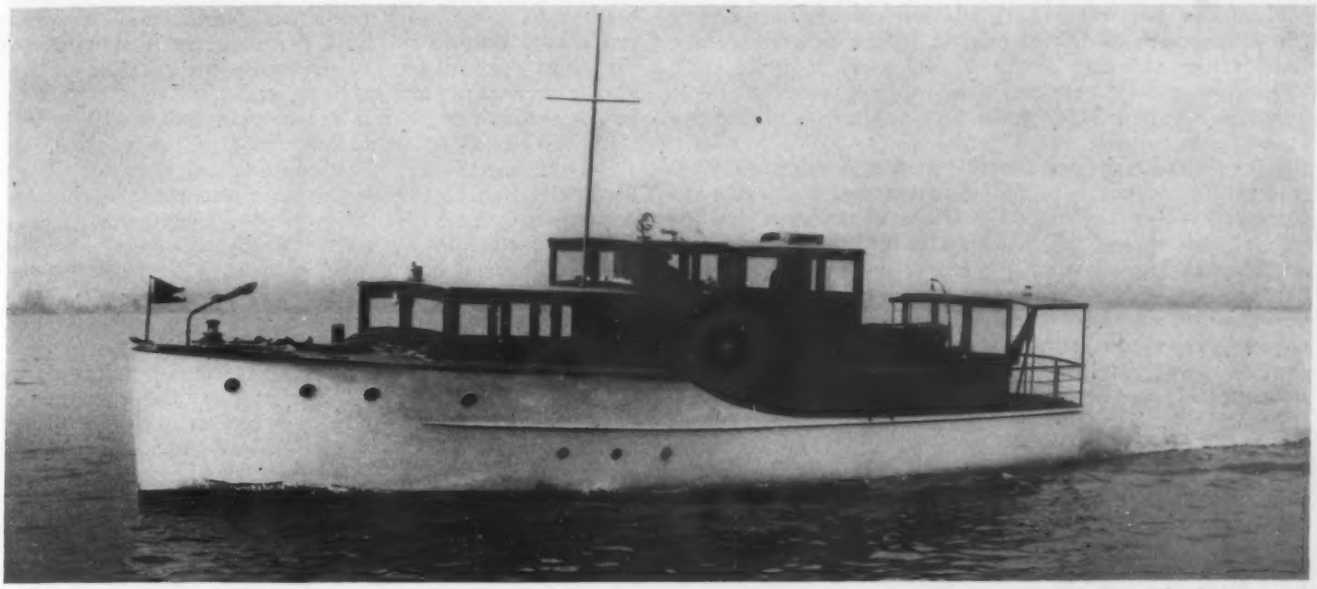
The fleet of Diesel-powered yachts today is large, and is increasing rapidly. With few exceptions, all the full powered yachts and auxiliaries over 130 feet long now building or built during the past few years are Diesel-powered. Many of the older steam or large gasoline-powered auxiliaries have been converted either to direct Diesel or Diesel-electric drive, but in the smaller types, from 130 feet down, the Diesel has yet to make its greatest conquest. There have been, however, many examples of successful small Diesel installations during the past six or seven years, and the accompanying brief data table outlines a few that were developed during this period. It is interesting to note the increase in horse power and in the speed of the later boats.

We are, apparently, on the threshold of a strong invasion of the smaller cruiser and express and fast commuter fields by the Diesel engine. Early handicaps of weight per horse power in the engines are disappearing, and increased production, carrying with it reduction of cost combined with entire reliability, gives us, even today, a wide range in sizes. New sizes and types are springing up on all sides, and with the main power plants, the necessary Diesel-powered auxiliaries, such as generator sets, etc., are being produced to "Dieselize" completely the entire engine room. Also the "V" types are now available, giving a remarkably powerful light-weight, direct reversing engine, requiring a minimum of engine room length.

The coming of the faster Diesel yacht is already calling for new styles and modes, and I believe the "thoroughbred" type of the future will lean towards low, racy profiles and stream-line effects suggestive of smartness and speed. The overhang types of sterns undoubtedly will

(*Continued on page 110*)

NAME	YEAR BUILT	LENGTH OVER ALL	LENGTH WATER LINE	BEAM	DRAFT	DISPL. TON.	SPEED M.P.H.	B.H.P. EACH.	REVO.	DIESEL ENGINE
GINGER-DOT	1922	86'-0"	85'-0"	15'-0"	4'-8"	43.5	13.3	80	400	TWO-4 CYL-2 CYCLE · MIANUS 7 1/16 × 9 7/8 · SOLID INJECTION
RAMNA	1925	102-0	92-4	18-0	6-0	73.0	14.2	175	450	TWO-6 CYL-4 CYCLE · WINTON 8½ × 11 · AIR INJECTION.
SIROCCO	1926	120-0	112-0	20-6	6-6	120.0	14.5	175	450	TWO-6 CYL-4 CYCLE · WINTON 8½ × 11 · AIR INJECTION.
PERCIANNA	1929	120-0	111-3	20-6	6-5	117.0	17.0	325	750	TWO-8 CYL-4 CYCLE · WINTON 8 × 10 · SOLID INJECTION.
KLAHANEE	1929	105-6	104-2	18-6	4-9	80.0	18.5	300	700	TWO-6 CYL-4 CYCLE · SPEEDWAY 8½ × 11 · SOLID INJECTION.
SOLANA	1929		SISTER SHIPS							
AVALANCHE	NOW BUILDING	154-1	153-0	24-0	8-0	330.0	19.0	600	450	TWO-6 CYL-4 CYCLE WINTON 14 × 16 · AIR-INJECTION.



Antares, an American-built Diesel cruiser 58 feet long, owned by Alfred Cernados, of Buenos Aires. Powered with two 90 h.p. Cummins Diesels, she represents recent development in small Diesel cruisers. Designed by Frederic P. Humphreys, Inc.

Choosing Between Gas Engines and Diesels

First Cost and Annual Savings in the Case of Small Engines from 30 Horsepower Upward Determine the Choice

By Reginald W. Crowly

IT is just as true of 30 horsepower as of 300 or 3,000 that the more continuous the operation the greater the savings of the Diesel engine. If the aggregate running hours are few the gasoline type will have the advantage. That is the economic law.

The Diesel engine may now be considered for auxiliary power in a yacht of 40 feet l.w.l. — whereas formerly the yacht of about 75 feet l.w.l. was the minimum — and engines of this type in low power are being installed in power cabin cruisers of 35 feet length, though only a year or two ago 75 feet seemed the minimum there, also.

Reduced in weight and size, shorn of the fittings that demanded an engineer's services, and properly adapted to simple operation in amateur hands, the Diesel engine has become a competitor of the gas engine down to about 30 h.p. in all except the speed class.

"Where's the saving?" asks the man who, having just discovered that the Diesel type costs considerably more than the gas engine of the same power, wonders what results justify the extra investment. For many people there can be no saving at all; others can find an even break; the rest can get an advantage.

To find whether one is in the Diesel engine class is easier than figuring the stock market. The economic law governing the choice between gas engines and Diesels is the same the country over, but its effects vary somewhat with locality. Climate, indirectly, has almost as much influence on the results as fuel prices have directly, since the climatic conditions determine to a large degree the number of hours a year that a pleasure boat can be used, and this factor is of great importance.

Because the climate in the North Atlantic range and over the Great Lakes curtails yachting more than in any other section of this country, these are the waters that show the operation of the economic law most strikingly. With fuel prices about as they are, one must be sure in these waters that the full power of the engine will be used 200 hours a year before the cost analysis can indicate the choice of a Diesel. With assurance of operation of 400 hours during the year the superiority lies indisputably with the Diesel. Between these two periods the advantage in dollars and cents will swing one way or the other according to the types of gas engine and of Diesel compared, and will be governed in a measure, also, by local fuel prices.

These figures disclose plainly why nearly every large new power yacht built today is Diesel-engined; namely, because its annual voyage to Florida practically covers the minimum operating period that serves as a base for the annual Diesel savings, and beyond which every hour increases the economy.

If every small boat with a 30 h.p. engine were to make that voyage or its equivalent every year, the Diesel type would have the advantage in every case. Inasmuch, however, as a very large proportion of the 30 h.p. engines used in pleasure pursuits between Eastport, Me., and Norfolk, Va., are operated for a very short total period during the year, the majority belongs, and will continue to belong, in the domain of gasoline, until manufacturing carries Diesel prices considerably lower.

Though the standard short term insurance policy gives six months' privilege of navigation in the Eastport-Norfolk range, by far the majority of small boats in those waters are in use only three months a year. Hours count up slowly. If one reckons 10 week-ends with as high as 12 engine-operating hours each, plus a vacation of two weeks with an average of six engine hours a day, one just about reaches 200 hours. Let each man set his own standard in that way and determine his annual total of engine operating hours.

Here lies the importance of this calculation: Every 100 horsepower of Diesel engine, in the powers we are considering, averages about $3,000 more in price than 100 h.p. of gasoline engine. How much a year that extra investment will cost depends on one's mode of computation.

If one counts six per cent interest and adopts an accountant's six per cent for depreciation, the extra investment will cost about $350 a year at the start. On the other hand, though six per cent is unduly generous for mechanical depreciation, it is scarcely adequate for style depreciation. Many will prefer to reckon 15 per cent depreciation on the ground that the resale value of an engine after three years' use is likely to be only 50 per cent of the original cost. On that basis the extra investment in the Diesel engine is a charge of about $600 a year for every 100 horsepower. Figure it to your own liking, but these two amounts will serve as examples.

To meet that annual extra cost one has only the savings in the fuel bill. Whether they are large or small depends more upon the total hours of engine operation than upon fuel prices.

In average operation the hourly consumption of gasoline per 100 h.p. is 12½ gallons, though expert adjustment can reduce it to 10 gallons. The Diesel engine consumption will not exceed 6 gallons per hour for 100 h.p., but one must add the cost of about ½ pint of lubricating oil per hour. With gasoline at 18 cents per gallon and fuel oil at 9 cents, the respective hourly costs per 100 h.p. will be $2.25 for the gas engine and 60 cents for the Diesel engine (including in the latter the extra lubricating oil), equivalent thus to a saving of $1.65 every hour in favor of the Diesel engine.

And here we are. If the extra investment in the Diesel engine represents a charge of $350 per annum, then 210 engine operating hours are required to recoup it by the hourly savings. If one prefers to reckon the yearly cost of the extra investment on the basis of a 15 per cent annual style depreciation, plus six per cent interest, viz., $630 per annum, then about 380 engine operating hours must be totalized during the year to cover the extra charge.

Somewhere between 200 hours and 400 hours, therefore, lies the answer to the question, "Where's the saving?" so far as the North Atlantic range and Great Lakes are concerned. In many localities fuel oil can be bought at less than 9 cents per gallon retail, which is practically double the bulk price quoted this winter at the New York oil piers. Frequently the gasoline price is above 18 cents per gallon. Each individual must adjust the hourly saving per 100 h.p. in accordance with local prices.

In the South Atlantic range, on the Gulf and on the Pacific Coast the warmer climate favors the use of boats for longer periods during the year, and the Diesel engine consequently benefits. Prices of both gasoline and fuel oil are, as a rule, lower in the South and West, but the differential remains fairly constant. For general approximations the examples worked out above are thus seen to be applicable to the whole country; for particular conditions the adjustments are easily made.

In regard to the assumed costs of depreciation, the explanation is due that the mechanical depreciation of a Diesel engine in a yacht or cruiser is practically *nil* if the boat is laid up properly. The railroad companies are using a figure of seven per cent depreciation on a basis of about 8,000 engine operating hours a year. If you operate an engine 400 hours in a year it will take you 20 years to give your engine the same amount of work as the railroads give theirs in one year. Proportionately, your engine depreciation figure should be one-third of one per cent.

The flat figure of $3,000 per 100 horsepower as the extra first cost of the Diesel engine is an average based upon the prices of the small, high-speed Diesel engines at the New York Motor Boat Show. Some engines figure lower and others figure higher. Between the best gasoline engines and the Diesel engines the price spread is considerably lower than the average here indicated.

One other cost factor will probably occur to many, namely, the fire insurance premium. The saving here is so disappointingly small that it may be ruled out. A fire policy with "six months lay-up" gives the Diesel an advantage of only $25 per annum on every $10,000 covered and twice as much on a policy with the full year privilege of navigation. Nobody pretends that these premium reductions are proportionate to the reduction in fire risk, but that is not the issue. These figures represent the only saving in premium offered by the insurance companies, whose policy it is to play very safe because of the paucity of actual data.

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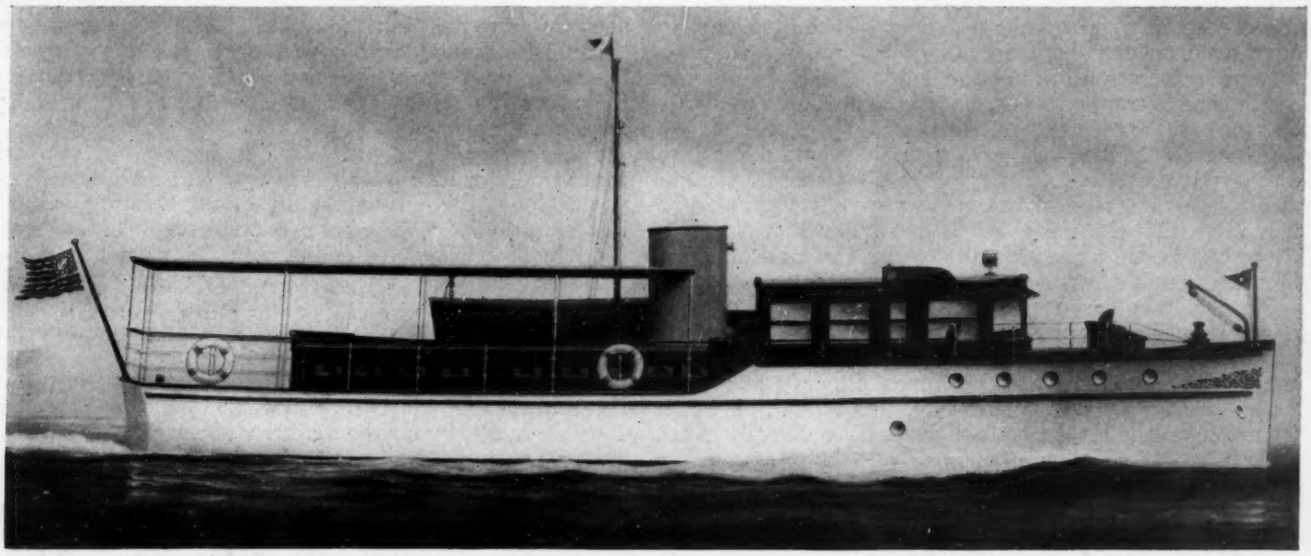
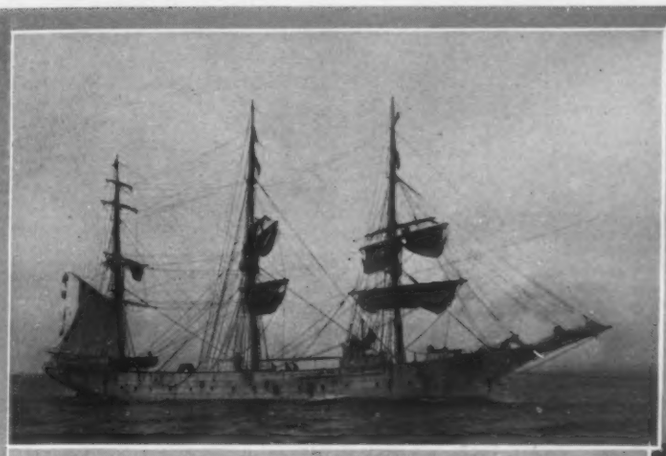


A 56-foot twin-screw Diesel. With a large sunken deckhouse, two double staterooms and spacious galley, and a cruising radius of 1,000 miles on one filling of her fuel tanks, this little cruiser offers the living comforts of a much larger craft. Two six-cylinder Hill-Diesels give a speed of 14 to 16 miles per hour. Designed and built by Townsend Boatbuilding and Engine Co.

Seven Seas, One of the Last of the Full-Rigged Ships

With a Diesel for Auxiliary Power, She Will be Used as a Yacht



SEVEN SEAS

Keeping alive the tradition of sail, Mr. Inglis M. Uppercu, New York Yacht Club, purchased recently this full-rigged ship, formerly the Swedish training ship *Abraham Ryberg*, and will fit her for yacht use, keeping the original rig, which is now extremely rare. The *Seven Seas* arrived at New York in April, after a voyage of 51 days over the southern route.

At anchor in the Hudson off the Columbia Yacht Club after her long voyage, *Seven Seas* was the center of interest, as indicated by this group of yachtsmen inspecting her from a Baby Gar runabout. *Seven Seas* crosses royal yards, although she is a small ship, only 168 feet long over all. A Diesel engine for auxiliary power will be installed.

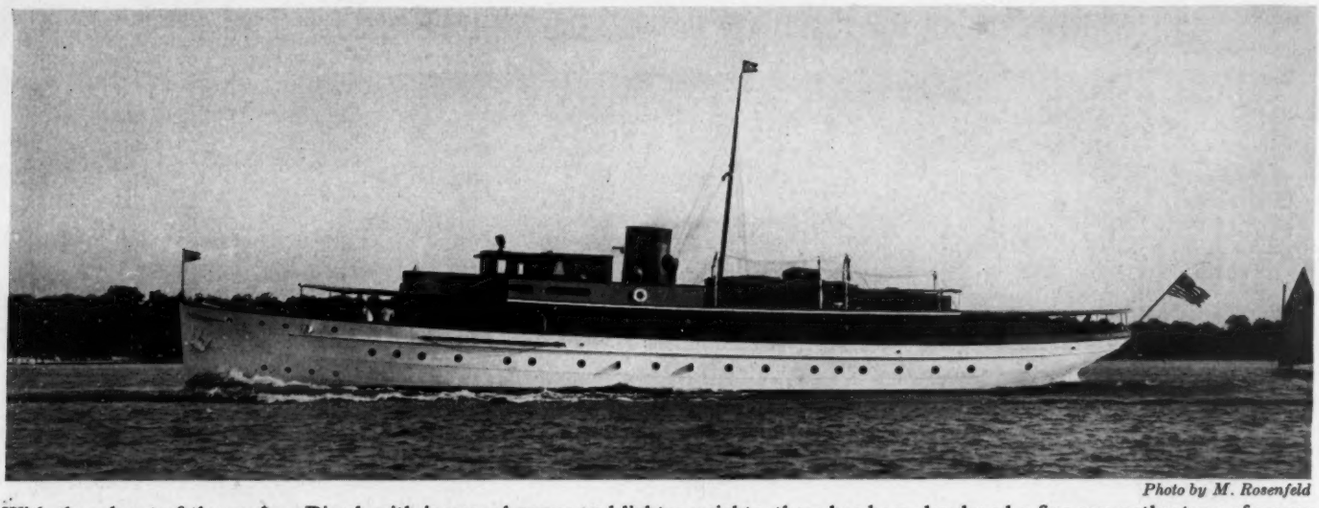


Photo by M. Rosenfeld

With the advent of the modern Diesel, with increased power and lighter weights, there has been developed a fine seaworthy type of power yacht with wide cruising radius and accommodations found formerly only in steam yachts of one-third larger size. Above is *Comoco*, 140 feet long, designed in 1927 by J. H. Wells for R. W. Judson, of Detroit. She was built by the Defoe Boat & Motor Works and two Bessemer Diesels furnish the power.

The Trend of Diesel Yacht Design

By JOHN H. WELLS

THE development of hull design for yachts using Diesel motors for power has, to a large extent, waited upon the development of the engines themselves. While changes in hull form are still in process, the coming of the lighter weight and higher speed Diesels during the past few years has brought about a certain definite trend in the design of yachts between 100 and 150 feet in length that is a distinct step in advance over the hull forms of a few years ago, when heavy, cumbersome engines were the only types available. Much the same thing occurred during the period of development and improvement of the gasoline engine, and many of the older designers and builders will remember the marked changes in hull form of power-driven craft that occurred between the years 1905 and 1915, due principally to the possibilities of greater speed offered by the newer gasoline engines.

Some years ago the popular type of so-called offshore cruisers using gasoline motors was between 80 to 110 feet in length. With the advent of the later Diesel types of motors, of greatly increased power for the same weights per horse power as the old, heavy-duty gasoline engines, and with double the cruising radius on the same tank capacity, power yachts suitable for offshore work began to appear in popular sizes between 100 and 150 feet in length. And in these later yachts it was possible to get increased accommodations found formerly only in steam yachts of one-third larger size.

But the tastes of owners are constantly changing and there is an increasing demand for more luxuries and comforts. The older yachts, in their day, were considered palatial, but the most they boasted were a little "coop" called an after deckhouse and a congested dining saloon in the forward house of a vessel of very narrow beam. But now, with the greater beam ratio of the heavier cruising types, continuous deckhouses, with inside passages, and really comfortable deck living rooms, are entirely possible and are extensively used. Yachts of this type have a cruising speed with moderate power plants of 10 to 12 knots and maximum speeds up to 13½ knots.

With the increased rotating speed up to 700 r.p.m., or over, of the new Diesel types, a more powerful installation may now be had, with the relatively low weight of some 30 pounds to the horse power. This has made possible speeds up to 18 knots in the lighter types of vessels. With this increased rotative speed of the motor, it was found that this was not always the most economical propeller speed, so the gear reduction motor has been developed, with a quiet and efficient operation that reduces the propeller rotation to almost half the motor speed. This is particularly desirable in the houseboat types, where light weight is necessary for the shoal draft of these hulls.

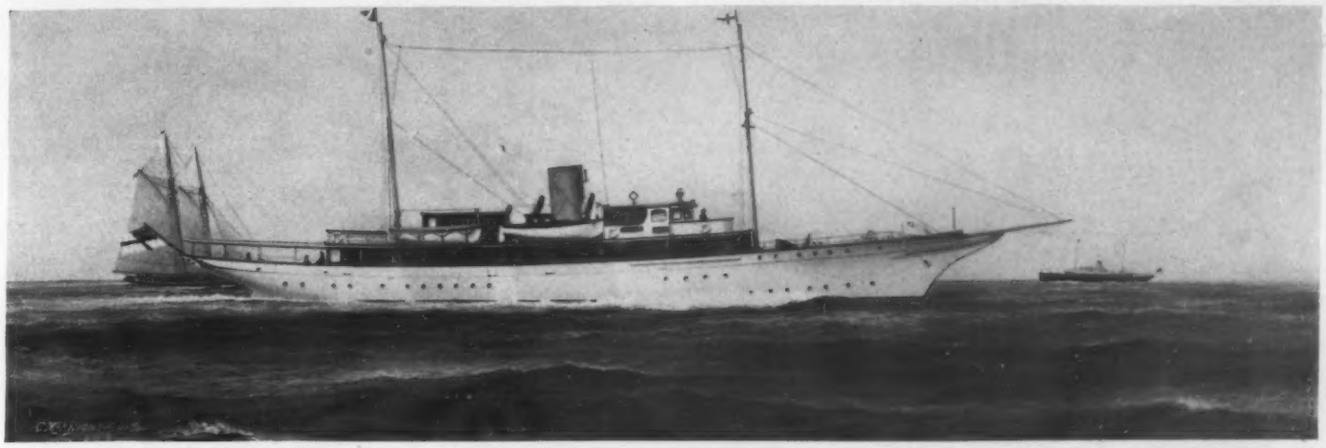
In the past one of the undesirable features of Diesel power for yachts of the size under discussion has been a suitable Diesel lighting plant that was quiet, free from vibration, and really well built. In recent installation, however, there is now the possibility of light-weight, high-speed Diesel lighting sets, making the entire motor equipment dependent on heavy oil fuel, whereas, in the past, we have had to depend on gas sets which required large gasoline tankage in the hull. Many of the heavy oil sets formerly available gave much more vibration than the main driving motors.

As to speed, there is always, and probably always will be, a demand for more. So far, the Diesel type has not shown the results that were formerly possible with steam. But with the growing knowledge in design to handle the high internal temperatures of the motors, we may expect results that will compare very favorably with those of gasoline and steam installations.

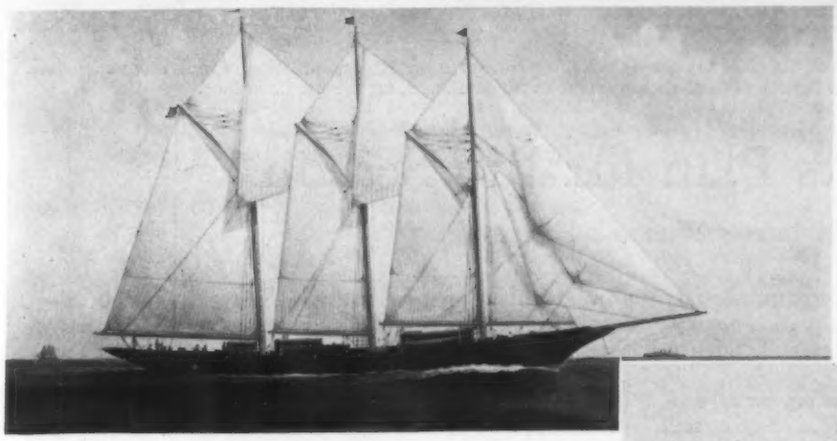
Several yachts have been built, or are now building, for Diesel power which embody many of the characteristics of fast gasoline cruisers, rather than those of the heavier ship type of hull which we have seen in the past few years. These are of low freeboard, moderate draft, with depressed houses and broad transom sterns. This type will be capable of 18 to 20 knots' speed. There are being designed, at the present time, at least two fast Diesel yachts in the neighborhood of 130 feet in length, with speed up to 22 knots — a great advance in speed over what was considered possible a few years ago.

But with all this increase in speed, the aim still is — as it always has been — greater seaworthiness, safety and comfort, with all the speed we can get without paying too extravagant a price.

Some New Diesels of Various Types, Showing the Trend of Design



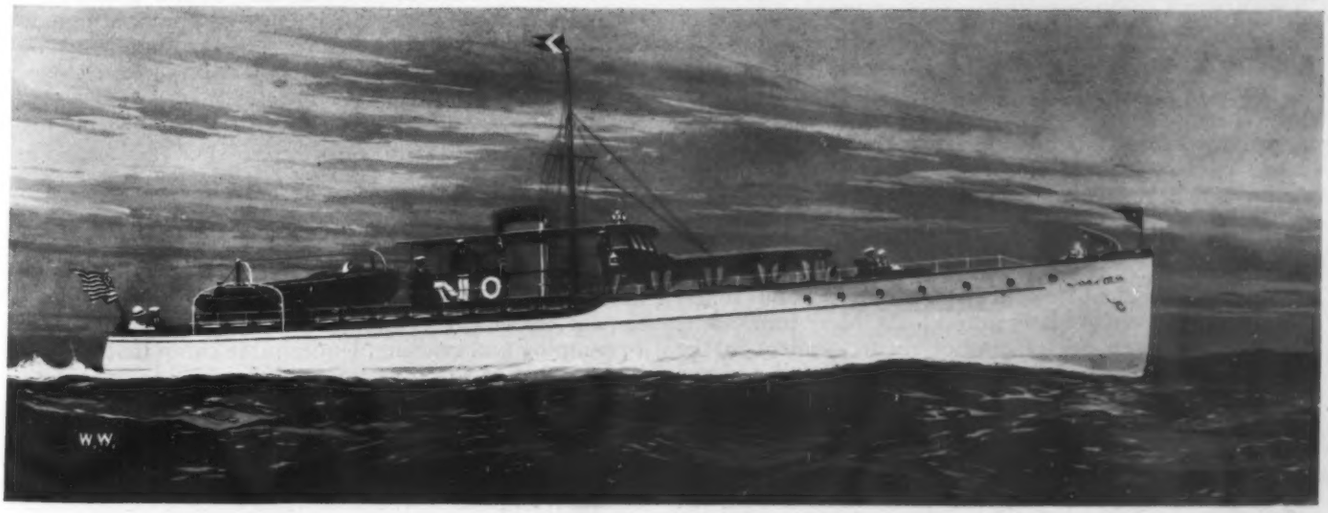
A new ocean cruiser 179 feet long over all under construction for a British yachtsman, Sir Richard A. Cooper, from designs by an American firm of naval architects, Cox & Stevens. She is a handsome, well-proportioned craft, with clipper bow and moderate after overhang.

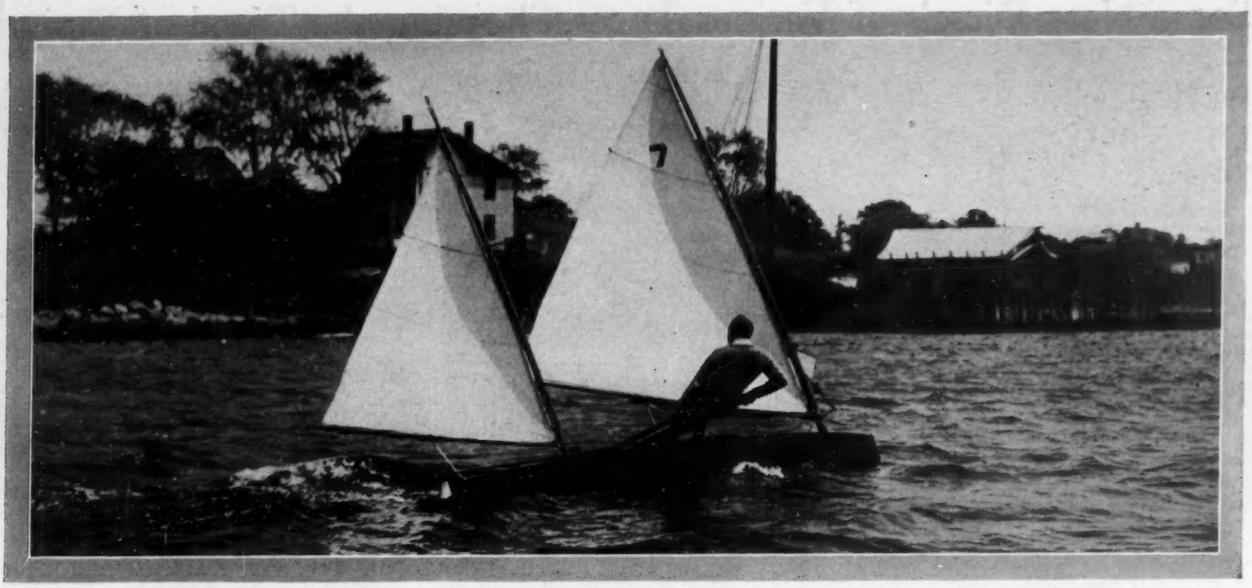


For auxiliary power in large sailing yachts the Diesel engine is now used almost universally. This is the *Migrant*, a 223-foot steel, three-masted schooner designed by Henry J. Gielow, Inc., for Mr. Carll Tucker, New York Yacht Club. She will be launched in June from the yard of her builders, George Lawley & Sons Corp., Neponset. A 100 h.p. six-cylinder Bessemer Diesel will furnish the power.

(Below) A moderate-sized standardized Diesel cruiser developed for Great Lakes and coastwise cruising by Henry C. Grebe & Co., Chicago. She is 62 feet in length and is powered by two Hill-Diesel motors.

(Below) Of the express cruiser type, this 100-footer is the latest product of the Consolidated Shipbuilding Corp., Morris Heights. She will be used for commuting purposes and is designed to make 19 m.p.h. with the new light-weight Speedway Diesel motors.





The American Canoe Association has been one of the chief exponents of sailing canoe racing. An organization of individual canoeists, it will hold, this summer, its fiftieth annual encampment at Sugar Island, on the St. Lawrence.

Canoeists Plan for Big Season

By LEROY WILLIAM HUTCHINS

The American Canoe Association, an organization of individual canoeists, will hold its fiftieth annual encampment and racing regatta at Sugar Island in the St. Lawrence, next August.

The Middle States Canoe Racing Association, an organization of canoe clubs of the Delaware-Chesapeake area, will hold its sixth national championship regatta at Washington next August.

Two associations! Two championships!

DURING five seasons the sport has borne up, even prospered mildly, under this dual control. And for five years the two associations have managed to disagree perfectly. Competition without contact has prevailed. And now there seems to be a chance of amalgamation, to the long needed good of the sport. Beyond question, this can only take place through a combination of the good features of each organization. It is interesting to discover exactly what they are.

According to the A. C. A., there are several phases of canoeing which a national organization should care for. Paddling-racing is one of them, of course, but sailing canoeists, though fewer in number, should not be neglected. And cruising canoeists, many of them unattached, should be provided for. It is even claimed that the "rocking-chair" canoeist should also be considered. By contrast, we have a group of men in the Middle States Canoe Racing Association who not only admit, but proclaim, that paddling-racing is their sole interest.

Throughout 50 years, the A. C. A. has recognized the individual only. A club might enter a club-four, but to the A. C. A. they were so many individuals. More important, perhaps, has been the placing of racing control in the hands of individuals through the Racing Board and the Executive Committee. The Middle States group went to the other extreme by recognizing the clubs only and placing entire control in the hands of club representatives.

An outgrowth of the A. C. A. policy has been the holding of the annual racing regatta in connection with the annual encampment. And as Sugar Island in the St. Lawrence is the property and chosen spot of the campers, the regatta went there also. This did not suit the southern paddlers at all. It was too far to travel, they claimed; besides, they didn't fancy camping, anyway. They wanted paddling, and lots of it, and they wanted their paddling where spectators could be assembled.

How is it possible to amalgamate such divergent views and requirements? Certainly it was impossible until a few individuals on each side began to recognize the absurdity of two governing organizations and to admit that the position of the opposing camp was worthy of study. And the study of the problem has been undertaken.

The A. C. A. has a hard working committee, with William H. Bruns as chairman, engaged in perfecting a club membership plan. And A. Earle Weeks, Commodore of the Middle States, has stated that they will endorse an amalgamation as soon as the A. C. A. has taken care of the racing man. It looks to me, at the moment, as though this can be and will be effected in ample time for official action at the next membership meetings. While not an easy task, all factors considered, it promises to be accomplished through the establishment of club memberships, and of a control board in the hands of racing men within the general A. C. A. structure.

Canoe Racing for All

Now that the A. C. A. is a member of the A. A. U., and expects to have canoeing accepted as a competitive sport in the 1932 Olympiad, it becomes imperative that canoe racing be provided for all. The relative exclusiveness of the old Association is unquestionably necessary as applied to camping and cruising. Undesirable camp mates should be barred. But this does not, and should not apply to racing that is held apart from encampments. It is on these premises that future A. C. A. memberships are likely to be framed.

Individual A. C. A. memberships, both annual and life, should remain as now. But another class of memberships,

The competitive paddling events are very popular in certain sections. The Middle States Canoe Racing Association will hold a national championship regatta at Washington, D. C., in August. (At left) Double two-blade event; (at right) war canoe of Dedham Canoe Club, at A. C. A. regatta.

open to all racing men, whether as individuals or through clubs, should be provided. These racing class members would be entitled to compete in all open regattas, including of course, the national and international championships.

Thus far the problem seems easy. The real task arises in forming a control board that will at once fairly represent the different classes of members and serve the sport. It is natural that the Middle States, with club plan only, will want control by clubs. And the A. C. A., accustomed to the action of individual members, will expect representation for them.

It should be noted here that all of the discussion so far has been by the paddlers and for paddling-racing. The sailors have not participated, and, as far as I know, are unconcerned. This is hardly as it should be, but they will probably come to life in due time.

The Sugar Island Meet

Commodore Walwin Barr, of the A. C. A., has announced plans for holding the Sugar Island Camp and Regatta from August 9th to August 23rd. The committee chairmen are: Henry W. Jahn, camp site; Frank W. Baldwin, transportation; George F. Lewis, entertainment; Mr. and Mrs. Oscar S. Tyson, squaw camp; Thomas Zuk, sailing regatta; Eugene C. Kelly, paddling regatta.

The usual sailing races are scheduled. The paddling races will be held on the 16th and 17th — cruising class races and novelty events on the 16th and racing class races on the 17th. A new feature will be a marathon around Grindstone Island on the 18th or 19th.

It is reported that the island icehouse is filled to the roof; that a camp mess will be run for the benefit of those who do not wish to do their own cooking; that there will be a camp store; and that the evening campfire programs will be top-notch. In all respects this year's camp promises to reflect glory all the way back through the years to those pioneer canoeists who met at Lake George just 50 summers ago.

A delegation of German canoeists, representing the German Canoe Association, is expected to arrive in August, and five or six of their racing men will visit Sugar Island, while the others will cruise through the Fulton Chain in the Adirondacks. As they will use racing model kayaks, it is planned to stage a mile race between kayaks and racing canoes to determine which type is faster.

As a reciprocal courtesy, the German Association has invited American canoeists to take a cruise through Germany and down the Danube to Vienna. A detailed itinerary has been prepared and printed for distribution.

Without benefit of the club-membership plan, Vice Commodore George Esselborn, of the Atlantic Division, is placing this season's racing in the hands of a regatta committee composed of club representatives, one from each of the active clubs. The interest shown indicates that it will result in a successful series of regattas.

The Atlantic Division schedule follows:

May 30th — Harlem River, N. Y. Rowing Association, 1:00 P.M. Usual ten canoe events, plus two extra canoe events for Junior Club Fours; to be run alternately with the rowing events, to make a continuous program.

June 9th — Inwood Canoe Club open regatta at Hermit Point (now called Canoe Beach). This is a resurrection of the old-time regattas held at Hermit's and should revive interesting memories for the old fossils. The location is easily accessible for spectators by auto or hike.

June 23rd — Joint open regatta run by the Yonkers C. C. and the Black Hawk C. C. of Ossining, N. Y., at Hermit Point, unless otherwise decided.

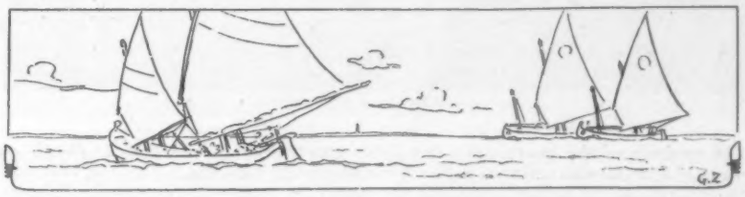
July 4th — Metropolitan Championships in Central Park. Events to be run absolutely on a time schedule; all contestants will be duly notified of their race and heat, and those not on the starting line at the specified time will be out of luck.

July 14th — Tentatively set for open regatta at Knickerbocker C. C. Probably novelty events and sailing, with Senior and Junior Club Fours, single and double. May be joint regatta, with North Jersey C. C. and Pendleton C. C.

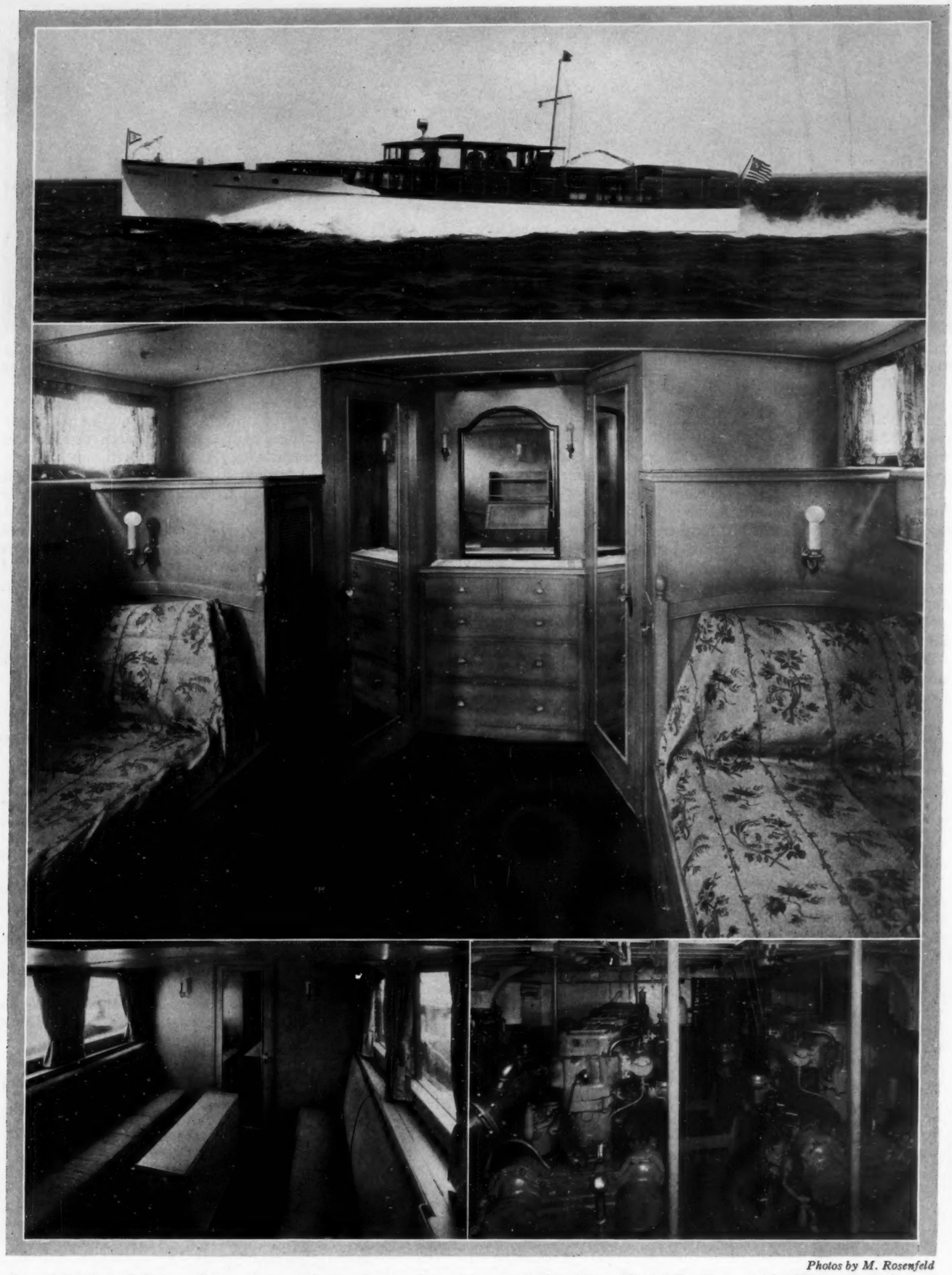
August 9th to 23rd — Sugar Island.

September 1st and 2nd — Labor Day Meet at George's Island. Atlantic Division Championships.

September 8th — Westchester County Championships at Tibbets Lake, Yonkers, N. Y. Prizes by City of Yonkers.



You'll Do II—A Snappy 72-Foot Express Cruiser



Photos by M. Rosenfeld

One of the first of the new fast cruisers of the year to run her trials was the handsome *You'll Do II*, owned by Walter E. Sachs and designed and built by the Luders Marine Construction Co. She is exceptionally pleasing to the eye, both outside and below deck. Of racy profile, with a large deckhouse amidships, the accommodations are especially roomy and tastefully finished. For power *You'll Do II* has two Sterling Dolphins giving a speed of 25 m.p.h.

The Revision of the Racing Rules of the New York Yacht Club

By C. Sherman Hoyt

IN view of some criticism and of the frequent disagreement in the interpretation of the racing rules now generally prevalent on this continent, the recent revision of the racing rules of the New York Yacht Club is naturally of interest to all racing yachtsmen, whether or not they compete in races of that Club. When considering the changes adopted, the report of the special committee charged with the revision should, to my mind, be given much weight. And one should bear in mind that while the New York Yacht Club elects to preserve an independent position, isolated from national or local racing associations, yet its special committee was composed mainly of racing men who are, or have been, closely affiliated with other more general organizations. Furthermore, suggestions and criticisms from members of the committees on racing rules of the North American Union and of the Y. R. A. of Long Island Sound were solicited, and in many cases incorporated, in the revisions recommended.

The report of the committee states that after an examination and comparison of the existing rules of the Club with those of the Y. R. A. of Long Island Sound, the North American Yacht Racing Union and the International Yacht Racing Union, the committee deemed "a complete rearrangement of the rules desirable, both as a matter of logical sequence and proper form, and for the convenience of those seeking to discover a particular rule covering any given situation." In consequence, the older rules have been frequently altered in verbiage and completely rearranged in five parts, dealing, respectively, with management; sailing rules; protests, appeals and disqualifications; measurement rule; and amendments. The actual changes or departures in principle from the rules recently current are few, and only in rare instances material. The report includes a careful analysis of the amendments, gives reasons for changes and sources of the same, and represents a large amount of hard work on the part of a conscientious committee which, because it was in the main responsible only to one club, whose confidence it possessed, was probably able to obtain the adoption of a more sweeping revision than would have been possible had it been dealing with the larger and less wieldy racing associations.

The great body of racing yachtsmen is concerned primarily with the changes covered by Part II, Sailing Rules, and it is only such alterations and their possible effect on racing that will be discussed here.

The first important, but not very vital, departure, is in the method of recalling yachts which have made a premature start. The New York Yacht Club proposes to try the European system of physically displaying a recall number for each yacht over the starting line before the starting signal. This European system presupposes early formal written entry of each competitor and a carefully printed race program with a list of entries and their assigned recall numbers. My personal experience with this system, excellent in principle, has led me to conclude that its practical application possesses little if any advantage over our custom of a special recall signal and verbal hail from the committee. In the confusion incident to checking a class with many starters necessitating many recall numbers, it is not unusual to display the wrong recall number; or if the line is a long one, the starters many, the actual recall numbers small in size and their display not being made with utmost promptitude, it is frequently almost impossible for the competitors to decipher them. Also, in preparing to start the next class, it sometimes happens that recall numbers are not promptly lowered when the victim has returned to the proper side of the line. The system is entirely impractical for our usual type of regatta unless quite different requirements for entries are adopted. The New York Yacht Club, in its own regattas, with a comparatively small number of starters in each class, and with the requirement of application on the part of each yacht for a permanent recall number for the season, may be able to work it out satisfactorily; but I wish the race committee joy when classes are combined, as they are in the Astor and King's Cup races, or when they hold open races for boats not enrolled in the Club, and more particularly, if more than one yacht "beats the gun."

In the rule giving definitions we find some changes in form. Overlapping, clear, and overtaking are defined as in the English version of the International Yacht Racing Rules, with explanatory footnotes. I have never found that the foreign application of these definitions differs in principle from our own, but since I consider the English wording clearer, the change is desirable.

The right of way rule has been much rearranged but differs radically from our old one only in two respects. The first important change abandons the present "misfit" rule, in force for a comparatively few years only, whereby an overtaken yacht might bear away, practically up to the point of physical contact, to hinder an overtaking yacht from passing her to leeward. We now return to the basic principle on which most of us have been brought up, that "a yacht must never bear away to hinder an overtaking yacht from passing her to leeward." I am old-fashioned enough to rejoice at the return to early practice but am also progressive enough to regret that the New York Yacht Club has not gone further. The main reason for the change adopted a few years ago was the practical difficulty of determining *in fact* whether the overtaken yacht did bear away to hinder or not, and how much, if any, under certain conditions, she might have been entitled to bear away.

The return to the old rule is, on the face of it, an admission that the recent legalizing of bearing away has been a mistake. When we revert to the older ruling it seems a pity not to clarify the situation. The International Rule, by the addition of the words "from her proper course" after "bear away" is at least explicit, taking into consideration the footnote definition of "proper course." The New York Yacht Club may well have questioned the advisability of using the actual words "proper course," due to the bitter controversy which raged some years ago when the then current race committee claimed that "proper course" was *implied* in the bearing away rule and then proceeded to make it applicable not only to that rule, but to several others which many of us claimed could in no way be affected by any "proper course" unless our rules inferred general compliance with the precedents established by the definitely different foreign international

rules, or more specifically, to those of the British Yacht Racing Association. At present, however, it seems a pity, when returning to the old rule, which admittedly gave trouble, that we should not endeavor to clarify to the extent of explaining that when sailing free the overtaken boat may bear away to a reasonable course to the next mark, weather and tidal conditions considered, provided that such a course does not involve risk of collision with the overtaking leeward boat.

The next and only other important change, as I interpret it, may lead to much misunderstanding and to a vital change in the tactics for position in cross-tacking to windward. The committee's desire to emphasize the rights of a yacht on the starboard tack have led them to add to the rule that a yacht close-hauled on the port tack must keep clear of one close-hauled on the starboard tack, the following footnote:

"A yacht on the starboard tack may luff as she pleases to prevent a yacht on the port tack from passing ahead of her, but (which should be "and") as these rules are framed to avoid collisions the yacht on the port tack shall be disqualified if the yacht on the starboard tack has borne away or tacked to *avoid the reasonable possibility of a collision.*" The italics are my own. Any literal interpretation of the last part of the above statement appears to give the boat on the starboard tack a right to go about and claim disqualification of any boat on the port tack which approaches anywhere near her. Certainly, "reasonable possibility of a collision" exists in cross-tacking every time a boat on the port tack elects to bear away to go under the stern of one on the starboard tack. For tactical reasons, it has, in the past, frequently paid to pass as closely as possible under the stern of a boat on the starboard tack rather than to risk crossing ahead of her or of tacking under her lee bow. The latter course would seem now prohibited, at least within close enough proximity to render any chance of backwinding possible. Now, it seems that all the fellow on the starboard tack has to do is to wait until the yacht on the port tack gets within the rather wide zone of "risk of collision," as defined in the rule of definitions, to then tack to port, hoist his protest flag, and say "Tag, you are it," to the poor chap on the port tack who never intended to hit him anyhow, but who most assuredly might "possibly" have done so. Certainly any boat entering within the zone of "risk of collision" is well inside of what is vaguely called a zone of "reasonable possibility of collision."

In spite of the above definite criticisms, I feel that the New York Yacht Club revision is a very real improvement of the racing rule. The actual application of the changed rules should be carefully watched this summer. Where their requirements, as solely suited to any individual club, do not preclude their adoption by such general governing bodies as the North American Yacht Racing Union and its component associations, conformity therewith is highly desirable, with requisite modifications as may develop in the course of the summer. In conclusion, I heartily concur with the New York Yacht Club Committee's summation of their report when they state: "Your Committee, in submitting its proposed amendments, fully realizes that they are not perfect, and that unquestionably future revisions will be necessary. * * * However, the rules now proposed are a distinct step in advance and, if adopted, it will be a comparatively simple matter to make such changes therein as further consideration and future experience may prove to be desirable. That the general form in which the rules are now presented is a decided improvement, your Committee has no doubt."

Keeping the Course Clear

The Relations Between the U. S. Coast Guard and Yachtsmen on These Occasions

By Captain Randolph Ridgely, Jr., *U. S. Coast Guard*

IN the autumn of 1898, when Admiral Sampson's victorious ships returned from Cuban waters to New York Harbor, a vast number of sightseeing and excursion vessels of every description filled the lower bay and harbor. The masters of these vessels disregarded practically every rule of the road and common sense to place their vessels in the most advantageous position possible in order that their passengers might have the best view obtainable of the returning men-of-war.

On the return of Admiral Dewey, aboard the *Olympia*, to New York, in October, 1899, another great marine parade was arranged and the harbor was more congested than ever; that there was no serious loss of life was due to good luck rather than good management.

Many yachtsmen also remember that in the fall of 1899, Sir Thomas Lipton made his first attempt to lift the America's Cup, *Shamrock I* sailing against *Columbia*. The Race Committee of the New York Yacht Club realized the tremendous interest the general public would take in these races, and having seen the crowded conditions in the harbor in 1898, felt that excursion steamers would be present in large numbers and crowding of the racing yachts would undoubtedly occur unless steps were taken to prevent it.

To meet this contingency and to guarantee each of the competing yachts a "clear field and no favor," the matter was fully discussed and some of the most experienced naval members of the club were called into consultation, with the result that Captain "Fighting Bob" Evans, U. S. Navy, was asked to take charge and keep the course clear. No better man could have been selected for this duty.

At that time no laws or regulations were in existence giving United States vessels or officers authority to patrol regattas, racing courses or parades in navigable waters of the United States. But there were laws and regulations giving officers of the U. S. Revenue Cutter Service (now the U. S. Coast Guard) certain authority and powers in enforcing the Navigation Laws. Captain Evans, through his influence in Washington, had several torpedo boats and four revenue cutters ordered to New York to report to him.

Some said, "Why, Captain, the masters of merchant craft won't pay any attention to these rules."

"The hell they won't," was his reply; and they did. Of course there were many and loud protests from the masters and owners of excursion vessels; nevertheless, they did not crowd in on the course or the contestants.

This was the first occasion when an organized and systematic patrol of yacht races had been employed, and it was highly successful. The members of the New York Yacht Club and Sir Thomas Lipton were enthusiastic about the manner in which the courses were kept clear, giving the

competing yachts every opportunity to maneuver. This shows what an energetic and bold officer may accomplish with little or no law or regulations, provided it is for the greatest good of those concerned.

The occasions recounted above showed the necessity for laws and regulations to prevent accidents at such times. The large increase in the number of regattas, marine parades and yachts, finally convinced those interested that some federal statute was needed to insure the safety of those participating in these events, and of the spectators; the result was that Congress passed an act, entitled, "An Act to provide for safety of life on navigable waters during regattas or marine parades," which was approved April 28, 1908. The first three sections of this act give the Secretary of Commerce the authority to make rules and regulations for carrying out the intent of the law and also provide the means of enforcement, as quoted:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of Commerce is hereby authorized and empowered in his discretion to issue from time to time regulations, not contrary to law, to promote the safety of life on navigable waters during regattas or marine parades.

"Section 2. That to enforce such regulations the Secretary of Commerce may detail any public vessel in the service of that department and make use of any private vessel tendered gratuitously for the purpose, or upon the request of the Secretary of Commerce the head of any other department may enforce the regulations issued under this act by means of any public vessel of such department and of any private vessel tendered gratuitously for the purpose.

"Section 3. That the authority and power bestowed upon the Secretary of Commerce by sections one and two may be transferred for any special occasion to the head of another department by the President whenever in his judgment such transfer is desirable."

As a matter of fact, the Secretary of Commerce has not sufficient vessels of proper type to meet the calls made on him to patrol regattas, etc., and it is his practice to request suitable vessels for this purpose from the Secretary of the Treasury, who invariably directs the Commandant of the Coast Guard to comply with the request by detailing Coast Guard cutters for the patrols. This is where the Coast Guard enters the picture.

For the information of all concerned, the rules formulated by the Secretary of Commerce are quoted in full. They are brief, explicit, and easily understood. They also have the full force of law, and are as follows:

"1. No vessel of any description shall be permitted to pass up or down the course, or to move in waters immediately adjoining the course, during the progress of a race in such a manner as to endanger participants in the regatta or the crews or passengers on board excursion steamers, yachts, or any other craft. This prohibition shall not apply to the racing craft or to such official boats as may be authorized by the United States officer in charge.

"2. In order to promote the safety of life, the United States officer in charge is authorized to forbid movement on the part of any vessel on the course or in waters immediately adjoining the course for such reasonable time prior to the race or subsequent thereto as he may determine.

"3. A succession of sharp, short whistles from a vessel patrolling the course under the direction of the United States officer in charge shall serve as a signal for vessels to stop. Pilots of vessels shall stop when directed to do so by the United States officer in charge or by his proper representative.

"4. The above regulations will be enforced subject to the discretion of the United States officer in charge so as not to obstruct unnecessarily the navigation of vessels of the merchant marine."

The usual procedure is for the officials of yacht clubs, power boat clubs, and squadrons, or any other organizations which contemplate holding a regatta, race, or marine parade, to apply to the Secretary of Commerce for a patrol. Then the steps outlined above are taken and the force needed is provided.

Since 1908, the Coast Guard has patrolled practically all races, regattas and power boat meets of any importance in the navigable waters of the United States. Each year the demand for these patrols is increasing.

The most notable events, and those regarded as fixtures, are the America's Cup races, the Yale-Harvard and other intercollegiate races at New London and Poughkeepsie, the Fishermen's race, and various power boat races and meets. I cannot recall an occasion where any complaint has been made as to the efficiency of the patrol, but there have been occasions where fault has been found with the efficiency and impartiality with which the rules have been enforced.

Strange as it may seem, the most flagrant and persistent violations of the rules are usually by some member or members of the club holding the race, or by those who should be most interested in securing a clear course with equal breaks for the contestants. This is due sometimes to ego, but usually, I hope, to ignorance. The easiest course that it has been my good fortune to patrol has been that of the Fishermen's races off Gloucester, Mass. This is probably due to the fact that the competitors and many of the spectators were practical mariners, who had been warned and requested to avoid interfering in any way with the competing vessels, and understood just what to do.

On one occasion when the Coast Guard was patrolling the Yale-Harvard boat race, a prominent man in a powerful high-speed boat, persisted in following the boats down the course, which was prohibited; the present Commandant of the Coast Guard, Rear Admiral F. C. Billard, was one of the officers on patrol duty. After warning the gentleman that he was violating the rules of the regatta, and no attention being paid to the warning, he promptly arrested the boat and sent her to the senior officer in charge of the patrol, where the boat was held. The owner, of course, was very indignant.

It is little or no trouble for the Coast Guard officers to organize and carry out the patrol for the larger and more experienced clubs, as the request for a patrol force is made long before the date of the races or regattas. These clubs know just what they want, have drawn up tentative plans, and the several committees are prepared to go into conference with the Coast Guard officers and work out the details for the patrol. With the less experienced organizations there is often much worry, confusion, and conflict with the practical operation of the patrol for the following reasons:

First, a request for a patrol force is delayed till it is almost impossible to assemble a sufficient number of vessels to make it really effective. Second, the time is so short that the patrol force arrives within the day before or the morning of the races, and third, the officials of the clubs do not really know what they want, or if they do, do not know how to get it, and have little or no time to confer with the officer in command of the patrol force.

One of the most trying situations to handle, and one which requires great tact on the part of the Coast Guard officer in charge, is the desire of club officials and prominent members to have special privileges; to fly an official flag; to be permitted on the course, or to follow contestants, etc. Strange to say, these people, though apparently anxious to have an efficient patrol, are often the very ones who pay little or no attention to course regulations.

Another source of trouble, often, is due to the failure to formulate rules and regulations in time to give them sufficient publicity among the members of the club and outsiders, so that much unnecessary chasing of boats and vessels off the course falls on the patrol vessels and small

(*Continued on page 104*)

Junior Yachtsmen Have Busy Season Ahead

New Classes and Many Events Assure Plenty of Competition and Keen Sport

By WILLIAM H. TAYLOR

NOT so long ago, when a boy wanted to become a racing yachtsman, unless he was very fortunate indeed, he had to beg a chance to go as extra hand with some older skipper, and it was apt to be a long time before he learned much except the psychological moment at which to belay or cast off a certain jib sheet. Or if he had a boat of his own it was generally a rather nondescript little craft in which he might learn much of seamanship and the ethics of pumping, but little about racing.

Most of the present generation of yachtsmen learned the game as best they might; but for their children, and any other children who are interested in the sport, they have in the past few years provided all the advantages that could be asked. Nearly every large yacht club has sailing instructors and often a special clubroom for its juniors. Some even have completely organized junior clubs. Also, a great many clubs have boats bought either by the club or by subscription among the members, healthy, husky little one-design craft in which the youngsters can compete on even terms.

The latest of these classes, designed by Sparkman and Stephens to the specifications set down by the Junior Yacht Racing Association of Long Island Sound, has a dozen boats, scattered among the western Long Island Sound clubs. They are husky little knockabouts, 21 feet 6 inches on deck, suitable for either racing or day sailing, and it is hoped they will be built by other clubs in other sections, so that the juniors may have uniform interclub racing. These boats are intended strictly for junior racing, but in many ports small one-design classes are now in use, or being built, that are used very largely by the youngsters. Edgartown, Nantucket and Marblehead are building such classes this year, and Marblehead has its "Brutal Beasts," seemingly millions of them, in which they start the kids sailing just as soon as they learn to swim — which is very soon.

On Long Island Sound this summer the program is one of the most ambitious that has been attempted. The Junior Yacht Racing Association of Long Island Sound, managed by a committee of seniors of which H. M. Wharton is chairman, divides its constituents into juniors and midgets, and holds a championship series for each. The junior championships this year will be held at the Pequot Yacht Club, Southport, Conn., and the midgets will compete at the Bay Shore Yacht Club, on Great South Bay.

Each club, of course, holds an elimination series of its own to determine its junior and midget club championship crew to be sent to the association series, which take the form of a tournament, each crew sailing against another in a match race in the preliminary rounds, and so on down, using one-design boats and changing boats each race. The midgets, crews of three boys or girls under 15 years of age, will sail Star boats, as they did a year ago, while the junior crews of four, from 15 to 18, will sail either the new junior one-designs or the Atlantic Coast boats, of which there will be a score at Southport.

The big event of the year for the juniors is, of course, the Sears Cup series, sailed annually at Marblehead, to which each local association sends the winner and runner-up crews from its championship. This series begins on August 26th this year, and will bring together the best junior crews between New York and Bar Harbor. And when you say "best junior crews" you say something, for what they lack in experience they make up in team work, thanks to the fact that, not being troubled by having to go to their offices, they can get out and sail on every decent day — and some other days — throughout the summer.

The championships, however, are only part of the Sound junior program. For the past three years the Larch-

(*Continued on page 114*)

The new Junior One-Design Class for Long Island Sound. They are handsome little knockabouts, designed by Sparkman & Stephens, and are 21½ feet over all, on a water line of 15 feet, with 230 square feet of sail. Some 15 have been built for the use of the junior sailors.

Part of the fleet of 130 outboards starting from Albany at 6 A. M., April 20th, for the 132¼-mile run to New York.

Results of the Albany-New York Outboard Marathon

A CAREFUL check-up of the course of the Albany-New York Outboard Marathon, which was run with such success on April 20th, resulted in an announcement by F. W. Horenberger, course surveyor, to the effect that instead of the course being 136 miles long, it really was but 132¼ miles in length. Wherefore the speed made by *Miss Eastern*, the winner, was re-figured as 36.63 miles an hour instead of 37.4 miles an hour, as previously announced. Even with this reduction, the performance of the little craft was truly remarkable, and leads one to wonder what the ultimate outboard speed limit will be, and when it will be reached.

Due to the unusual height of the Hudson River when the race was run, driftwood was a distinct menace to the racers, and many a sheared pin or bent propeller ruined the chances of fast boats to make fine showings. The excellent records made by the big fleet of finishers proves beyond a doubt the great strides made in both boats and motors over those which competed last year.

Below is a summary of the finishers, listed by classes:

CLASS B

Name	*Driver*	*Motor*	*Boat*	*Elapsed Time*	*Position in Race*
Miss Berkshire	A. Eckert, Jr.	Johnson	St. Louis-Meramec	4:37:08	16
Carl's Spencer Special	Carl Mason	Lockwood	Spencer	4:53:00	21
Rubber Baby	J. E. Wilkinson	Lockwood	Herbst	4:54:22	24
Miss Russell II	A. Pringle	Johnson	Russell	5:55:50	43
Boyd-Martin	C. J. Conn	Lockwood	Boyd-Martin	6:03:00	45
Snappin-Cracker	P. James	Lockwood	Boyce-Rutledge	6:31:40	47
B-48	H. Fawcett	Lockwood	Lyman	6:59:45	49
H. S. Jr.	M. B. Osborn	Lockwood	Howell	8:14:20	53

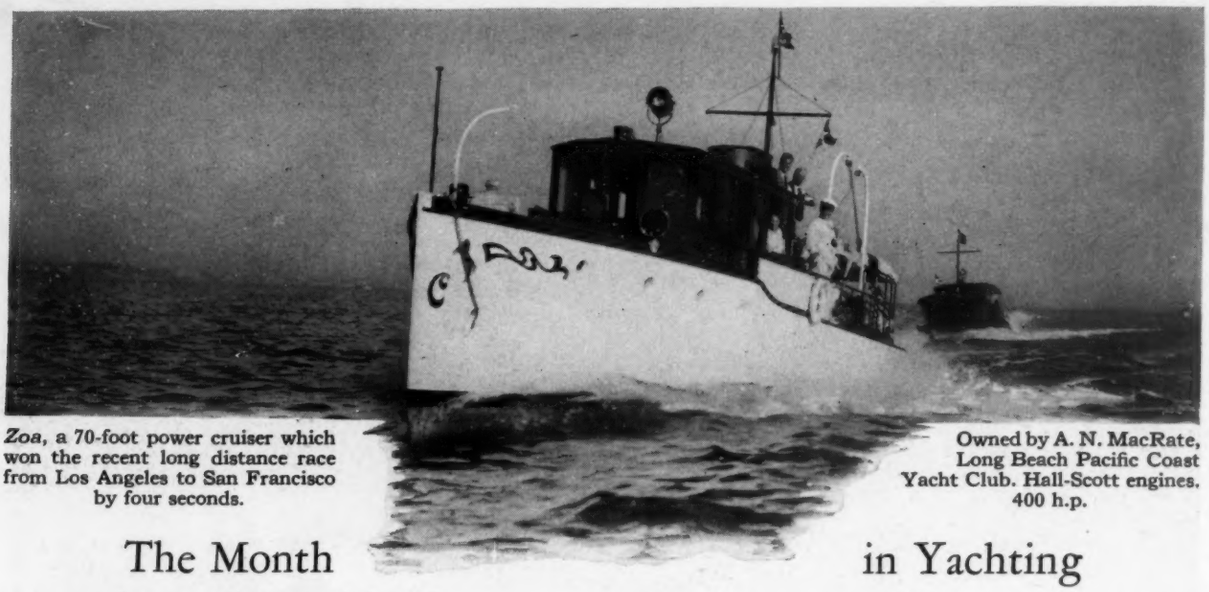
CLASS C

Whim	B. Fowler	Evinrude	Flower	3:54:55	4
Miss Shirt	F. H. Patterson	Evinrude	Thompson	3:58:30	5
Penn Yan	L. E. Preston	Evinrude	Penn Yan	4:14:00	9
Bozo II	A. H. Gebrath	Evinrude	Sea Sled	4:15:07	10
Big Ben	H. Chapman	Evinrude	Hallock	4:18:40	12
Baby Whale	F. Meyers	Evinrude	Kelley	4:22:41	13
Baby Whale	H. C. White	Evinrude	Kelley	4:24:39	14
Baby Whale	J. Pilzer	Evinrude	Kelley	4:37:40	17
Miss Glencove	J. H. Gregory	Evinrude	Bair & Edgerton	4:38:38	18
Non-Capsizable	C. M. Bouvier	Evinrude	Non-Capsizable	4:47:17	19
Caw	M. Hagenlocher	Evinrude	C. A. Warren	4:47:25	20
Cole Hod	S. M. Cole	Evinrude	Owner	4:54:06	22
Brewster Baby Olds	A. V. Rogers	Evinrude	Brewster	4:54:14	23

(*Continued on page 118*)

(At left) Jack Griffin (right) who inaugurated this strenuous test of engines, hulls, and drivers, congratulating Jacob Dunnell, the winner, on his arrival.

(Right) *Miss Eastern*, which set a record of 36.63 miles for the long course, as she appeared off the Colonial Yacht Club after the finish of the race.



Zoa, a 70-foot power cruiser which won the recent long distance race from Los Angeles to San Francisco by four seconds. Owned by A. N. MacRate, Long Beach Pacific Coast Yacht Club. Hall-Scott engines. 400 h.p.

The Month in Yachting

On to Gibson Island

AS the time draws near for the start of the Gibson Island Race on June 22nd, all signs point to a large and representative fleet facing the starter off New London. Thirty-two official entries had been made on May 18th, among which are sloops, cutters, yawls, ketches and schooners, some with fine racing records and others which have yet to gather in any glory.

As usual, schooners far outnumber any other type of boat. Class D, racing under the Universal Rule of rating, is sure to provide a most interesting comparison with the usual type of long distance racer, while the number of fairly small craft entered promises to lend added interest to the affair.

A late announcement of the committee is to the effect that a Special Class for sloops has been added, to provide competition for sloops of cruising type between craft between 30 and 45 feet over-all measurement. Several boats previously put in Class D will be transferred to the new class.

Following is the entry list:

CLASS A

Boat	*Owner*	*Rig*
Sachem	Rowe B. Metcalf	Sch.
Sayonara	Vernon F. West	"
Fearless	Ralph B. Williams	"
Caroline	Roger B. Young	"
Pinta	W. J. Curtis, Jr.	"
Senora	William H. Coburn	"
Teal	R. G. Biglow	"
Tradition	J. Rulon Miller, Jr.	Sch.
Malabar VII	Horace B. Merwin	"
Malabar VIII	W. Findlay Downs	"
Teragram	G. W. Mixter	"
Mohawk	A. T. Baker, Jr.	"

CLASS B

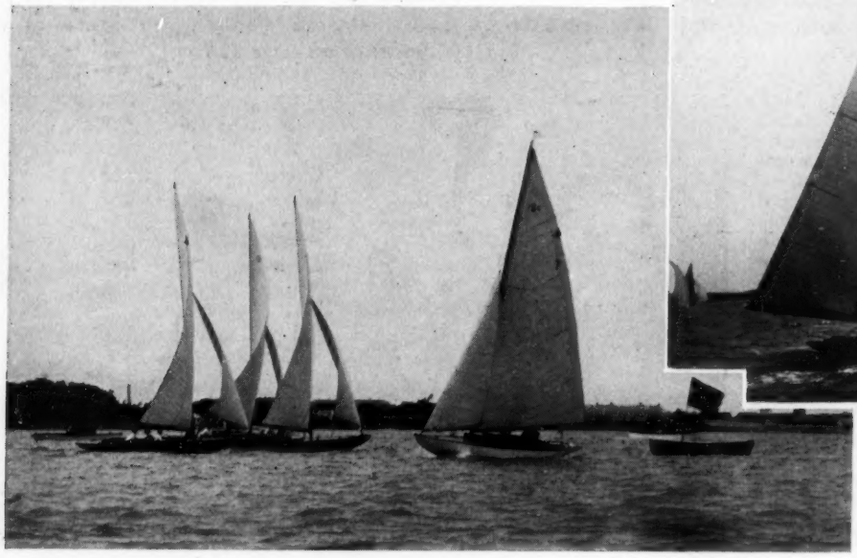
Malabar III	Arthur P. Butler	Sch.
Northern Light	E. P. Bullard, III	"
Calypso	C. Burlingham and G. P. Montgomery	"
Malay	R. W. Ferris	"
Sagamore	Edward W. Madeira	"
Buccaneer	F. D. Powers and D. M. Hinrichs	"
Merry Widow	William McMillan	"
Glenkara	S. C. Steinhardt	Ketch
Doubloon	Henry Hotchkiss	"

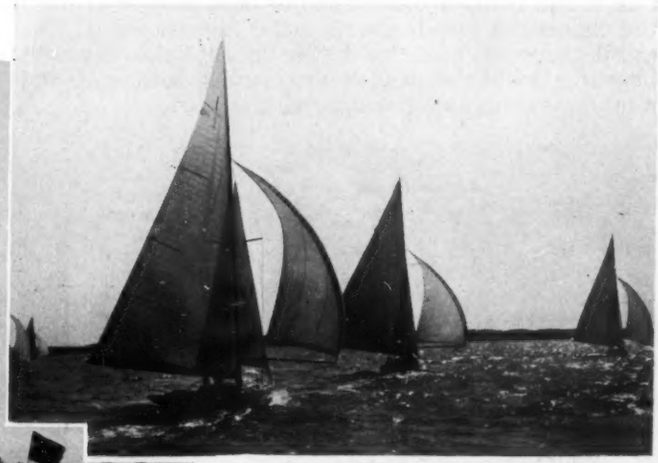
CLASS C

Cynara	D. K. E. Fisher, Jr.	Yawl
Merry Ann	C. E. Ellicott, Jr.	"
Kelpie	W. L. Henderson	"

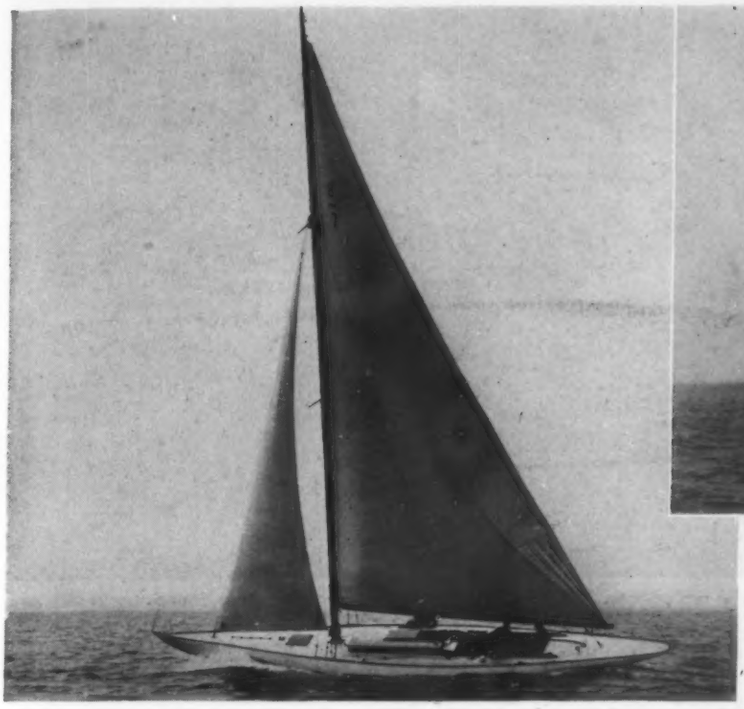
CLASS D AND SPECIAL CLASS

Kulinda	John Swope	Sloop
Psyche	C. W. Lippitt	"
Nautilus	J. H. Ottley	"
Falcon	G. Ottley	"
Atair	C. T. Stork	"





Two views of the recent International Team Match sailed in Bermuda, in which the Sound Interclubs defeated the Bermudian One-Designs by a score of 84¾ to 59¼. (Above) Down the wind in a fresh breeze. (Left) Jockeying for a start.



The first of the new Eight-Metre yachts to get under sail for what promises to be a hot summer's campaign. (Above) *Sally*, owned by E. Townsend Irvin; Mower-designed. (At left) Johnston deForest tries out *Priscilla II*, designed by Clinton H. Crane.

Boat	*Owner*	*Rig*
Phantom	J. C. West	Sloop
Hotspur	A. F. Loomis	Cutter
Windrush	J. S. Wilford	"

Maybe Defends Perpetual Trophy at San Francisco

ONCE again the Corinthian Y. C. of San Francisco wins the coveted Perpetual Challenge Trophy. This time it was Arthur Rousseau's Six-Metre *Maybe* that successfully defended the trophy against the challenger, Jimmy Wyatt's Bird-boat *Curlew*, flying the colors of the San Francisco Y. C. The race was sailed Sunday, May 5th, over the regular channel course which measures 14 miles, the start and finish being within a stone's throw of the Marina, which was thronged with spectators.

Although both boats got away to a perfect start, the outcome was hardly in doubt after they rounded Presidio Shoal buoy, with *Maybe* 42 seconds to the good. On the long run down the wind to Goat Island buoy the defender accumulated a minute and 10 seconds additional margin, and by the time Southampton Shoals marker was reached the lead amounted to 3 minutes, 17 seconds.

Coming out of the lee of Angel Island and heading well up for the starting line, *Maybe* crept away from *Curlew* until by the time she had passed this marker, rounded Presidio Shoals buoy, and again set her spinnaker for the run down wind to the finish, *Maybe* crossed the line 18 minutes, 20 seconds ahead of *Curlew*, or 17:10 on a corrected time basis.

Maybe, Arthur Rousseau's Six-Metre, leading *Curlew* in race for Perpetual Challenge Cup sailed on San Francisco Bay.

The Perpetual Challenge Trophy Race is an institution in West Coast yachting circles. The first event took place in 1895 and has been sailed every year since, with few exceptions. This is the seventh consecutive year the cup has been won by the Corinthians. Although challenged for repeatedly by outside clubs, the trophy has never left San Francisco Bay waters.

TOM WHITE.

The new 30 Square Metre Class yacht built for Charles A. Welch, from designs by George Owen, to meet the foreign invasion in this class.

The End of a Famous Cup Defender

THE oldest extant America's Cup defender — indeed the only one remaining except *Resolute* — was sent to the bottom off The Graves, Boston, with full naval honors on May 26th. She was

General view of Detroit Motor Boat and Sportsman's Show. The exhibit of Dodge Watercars in foreground.

the *Mischief*, fifty years old, and conqueror of the Canadian challenger *Atalanta*.

After a varied and distinguished career as a yacht, and then a few years as a party boat, *Mischief* had been in a fair way to end her days as a gasoline and oil barge. She had been just that, in various parts of Boston Harbor, for ten years when William U. Swan, who was instrumental in saving the *America* a few years ago, saw her, took pity on her rusted hulk, and bought her.

On May 26th, in tow of a Navy tug and with a delegation from the Charlestown Navy Yard, as well as a numerous escort of yachts from various ports on Massachusetts Bay, what was left of the old "Iron Pot" — the first scientifically designed cup defender — was towed out of Boston harbor. She flew the burgees of the Boston, Lynn and Milton Yacht Clubs and the private signal of Joseph R. Busk, for whom she was built. Former Commodore James R. Hodder, of the Boston Yacht Club, delivered an eulogy over her, Mr. Swan and Commodore W. W. Nichols added a few words, a charge was fired in her bow and she slid from sight as a bugler from the Navy Yard played "Taps."

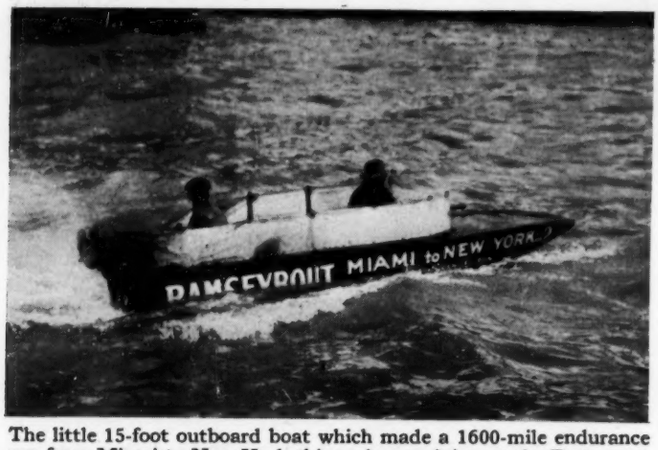
Detroit Motor Boat and Sportsman's Show

DETROIT'S first Motor Boat and Sportsman's Show, held from April 20th to 27th, fulfilled the predictions made for it, and proved gratifying from the standpoint both of the exhibitor and of the visitor. The attendance came up to expectations, and those who visited the show were evidently in a frame of mind to buy, as all exhibitors reported splendid sales and prospects which will keep them busy for several months to come.

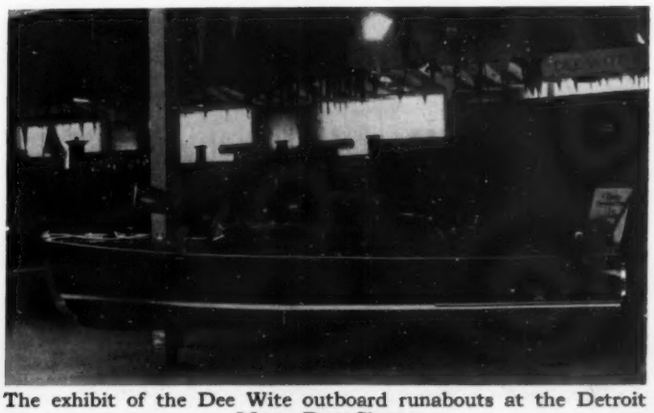
The boat department of the exhibit was a representative showing. The smaller types of craft predominated, but a goodly number of large runabouts and cruisers were included. Yacht brokers and designers who were represented were favorably impressed with the number of people who evidenced interest in the larger types of boats. The engine exhibits were most complete, and those in the industry who have been in attendance at shows for several years were unanimous in saying that Detroit's annual boat show has taken its place along with those which have elsewhere been established for a greater length of time.

Convention Hall, in which the show was held, is an enormous exposition building with ample floor space for future expansion which provides display room on one floor for all exhibitors.

The management of the show was in the hands of H. H. Shuart, who states that the success of this year's event assures annual expositions.



The little 15-foot outboard boat which made a 1600-mile endurance run from Miami to New York this spring, arriving at the Battery at the end of her long run. She is owned by J. D. Ramsey and H. S. Harris. Two Lockwood B motors were used.



The exhibit of the Dee Wite outboard runabouts at the Detroit Motor Boat Show.

Prize Essay for Juniors

"THE Evolution of the Rig" has been selected as the subject of the $100 prize essay for the juvenile members of the Junior Yacht Racing Association of Long Island Sound. This effort to arouse interest in yachting traditions and progress was adopted by the officers of the Junior Association at the suggestion of William U. Swan, of Boston, the father of the Junior Championship. The details of the competition are being worked out by the officers, while W. P. Stephens has been asked to act as judge.

General view of the first San Francisco Motor Boat Show, which attracted an attendance of 65,000 boating enthusiasts.

San Francisco Holds First Motor Boat Show

DRAWING an official attendance of over 65,000 boating enthusiasts, the first Pacific Coast Pleasure Boat Show, held at San Francisco April 27th to May 4th, demonstrated, in no uncertain terms, the widespread interest in all things maritime on the Pacific Coast. Even the sponsors were surprised the opening day to find that over 12,000 had examined the fifty-odd exhibits in the huge Civic Auditorium. This rush of would-be boat owners the first day was followed by continuously crowded floors throughout the week, convincing all hands that the extent of the yacht-curious populace has been widely underestimated. Charles Tripler, President of the Associated Boat Industries, promoters of the show, announced the decision of this organization to establish the show as an annual event.

Among the many exhibits that aroused great interest were the Gar Wood fleet of three fast craft, the "50" and "40" sedans, and the "30" open runabout; a 42-foot Dream Boat, shown by the Atlantic-Pacific Sales Corp., of Seattle, and brought here for the show; and W. H. & E. von der Werth's 40-foot express cruiser, shipped from Portland, Ore., to win the approval of all as one of the handsomest boats on exhibition. The 40-footers set the limit for size that can get through the doors, and the Dream Boat, because of her healthy beam, had to be tilted on her sides and then only had an eighth-of-an-inch clearance at her rub-strake!

Stephens' Craft, from Stockton, Calif., showed a popular 34-foot cruiser and a Gilligcraft model of similar type. Just to port of the "bridge," and extending well towards the ceiling, stood what salty yachtsmen love and what was undoubtedly the most graceful of all the fine craft surrounding her — a fully rigged 30-foot Bird Boat, constructed by the United Ship Repair Co., of San Francisco. White sails, glistening deck, and masts, made this trim aristocrat supreme in her domain, although tremendously outnumbered by powered craft. At her side, an 18-foot "Cub" by the same firm, shared in her bigger sister's glory.

Across, on the starboard side of the "deck," John Twigg's cross section of his 92-foot cruiser evoked considerable attention. Sturdiness of build is clearly shown by the labeled timbers which run throughout the craft.

Near the center of the main deck, George Kneass' 32-foot Day Cruiser, a 25-mile speedboat, and a 20-foot outboard trunk cabin cruiser, kept attendants busy explaining "whys and wherefores." Adjoining this booth, B. H. Hebgen's large exhibit of Dee Wite outboard runabouts, Johnson Motors, and Regal engines, was the center of interested throngs. Near the main entrance, the two Chris-Craft sedan models drew praise from all passersby for this well-known make of fast runabout. Lastly, of the outstanding boats on display, were three of the Enterprise Boat Co. of San Francisco. Featuring this group was a 26-foot "Pacemaker," of the super-runabout type with a speed said to show up so called "45-milers," then a 22-foot sportsman's cruiser brought sighs of content to those who climbed inside; while a 22-foot unfinished runabout gave an idea how such craft are put together.

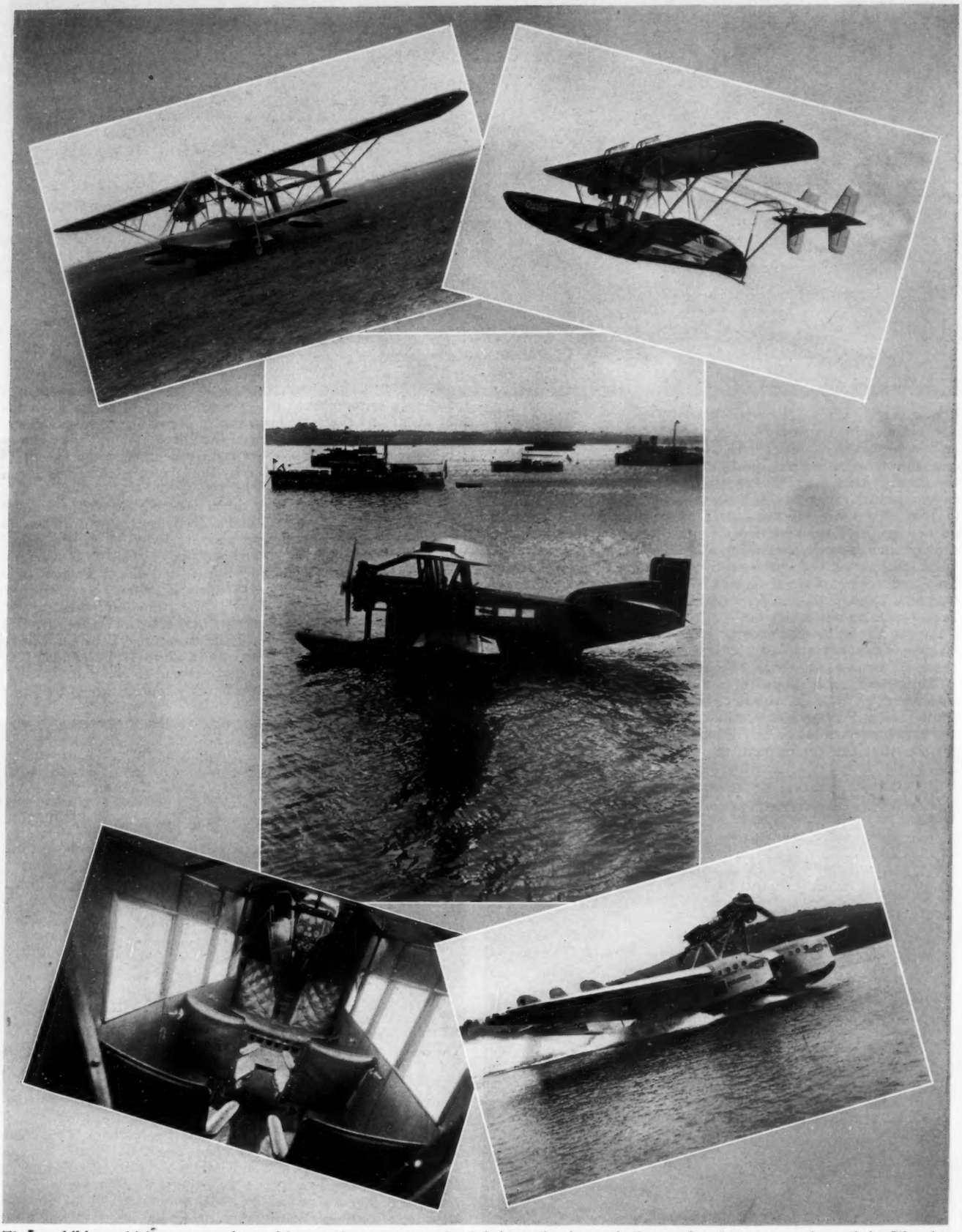
All of the representative marine engines were prominent. Among the foremost was the complete line of Universals, from the super-eight to the "tiny Tim." Harry A. Miller, maker of the 151-class engines which powered the 151 hydroplane "*Miss Rioco*," world's record holder, had a very comprehensive exhibition of his engines. Evinrude, Elto, Lookwood, and Caille and Johnson were the interest of everyone, the Sea Horses, particularly, drawing close scrutiny. Sterling, Standard, and Scripps higher powered plants completed this angle of the marine displays.

HAROLD E. BERNARD.

The Gar Wood fleet of runabouts at the San Francisco Show.

The booth of the Evinrude Company at the San Francisco Show was most attractive.

Recent Developments in Aviation Bring Flying to the Yachtsman



The amphibian, which can come down either on the water or on land, is becoming increasingly popular. At top, two views of the Sikorsky Amphibian, sometimes called a flying yacht. This is a ten-passenger plane of the Curtiss Flying Service. Center, a Keystone-Loening Air Yacht on Manhasset Bay. Powered with a Wright Cyclone, it has a speed of 130 m.p.h. These planes are used by the New York & Suburban Airways, in which a number of well-known yachtsmen are interested. Bottom, left, interior of six-passenger Keystone-Loening plane. At right, the American Aeronautical Company's American Savoia-Marchetti 14-passenger double-hulled seaplane, taking off from the water.

The Schärenkreuzers

The Rules and Limiting Dimensions of These Sail Area Classes

By NORMAN L. SKENE

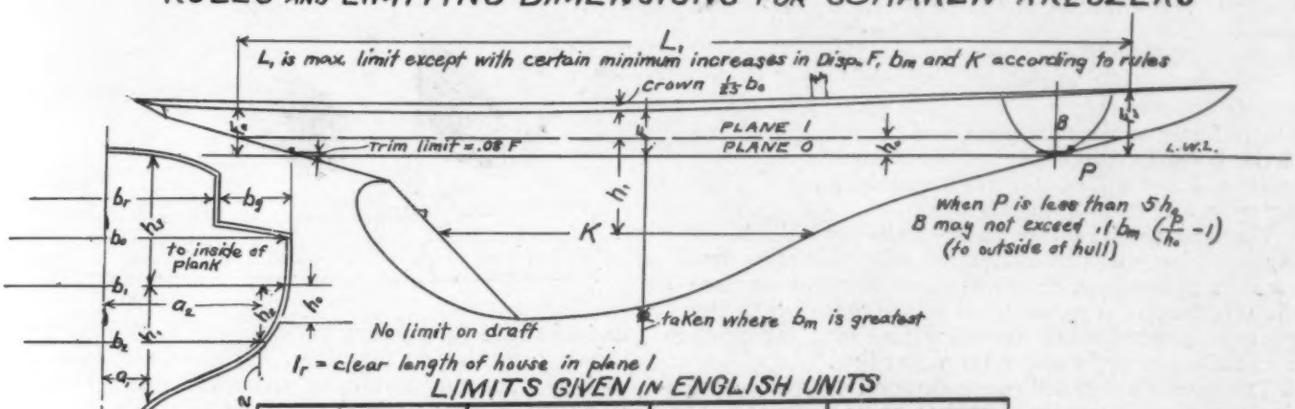
WITH boats building in this country for the 22 square metre and 30 square metre sail area Schärenkreuzer classes and international racing assured in the latter class, great interest is bound to develop among racing yachtsmen in the characteristics of these interesting boats and in the restrictions under which they are designed.

The basis of classification relates to area of sail, the propelling medium, which is scientifically correct. Sail area is the heart of the sail boat as is the motor in a power-driven craft. It directly influences the cost of the boat and the labor of handling. Maximum speed results on a fixed propulsive medium are therefore a measure of efficiency, and length or tonnage or any other hull characteristic is a false standard of comparison for rating. That these boats are presumably, and, I think, undoubtedly faster than Universal or International Rule boats of about the same sail area, and at the same time are especially seaworthy, is the significant fact that will appeal to the thoughtful yachtsman and lead to their growing popularity.

It would be the acme of simplicity if sail area could be the sole limit for classification, but other restrictions appear to be necessary or advisable. These supplementary restrictions are few in the case of the new American 125 square feet Development Class but, unfortunately, extremely numerous in the case of the Schärenkreuzer. In order to present these restrictions as graphically and as simply as possible, and in English units, I have prepared the accompanying diagram and table of limits.

The table gives the limits for the 22, 30 and 40 square metre classes and for scale model yachts for each of these classes on a scale of two inches to the foot. These boats

RULES AND LIMITING DIMENSIONS FOR SCHÄREN-KREUZERS



LIMITS GIVEN IN ENGLISH UNITS

LIMITS		22 SQ. METER FULL SIZE	22 SQ. METER 1/6 SIZE	30 SQ. METER FULL SIZE	30 SQ. METER 1/6 SIZE	40 SQ. METER FULL SIZE	40 SQ. METER 1/6 SIZE
SAIL AREA	max.	236.7 sq. ft.	947 sq. in.	322.8	1291	430	1722
DISP.	min.	2910 lb.	285 lb.	4410 lb.	20.4 lb.	6480 lb.	30.0 lb.
L_1	max.	25'-60"	51.20"	29.80'	59.76"	34.40'	68.80"
F	min.	15.75"	2.62"	17.72"	2.95"	20.08"	3.35"
$F_v + F_a$	min.	36.15"	6.02"	40.79"	6.79"	46.30"	7.72"
K	min.	6.57'		7.53'		8.53'	
b_o = at least b_1	min.	5.62'		6.30'		6.93'	
b_1	min.	5.62'		6.30'		6.93'	
$b_2 = 2a_2$	min.	4.59'		5.12'		5.64'	
$b_m = \frac{b_o+4b_1+b_2}{6}$	min.	5.45'	10.90"	6.10'	12.20"	6.72'	13.44"
b_r for $\frac{1}{2} l_r$	min.	3.28'		3.61'		3.94'	
b_g	min.	12.2"		13.8"		15.4"	
B = .4 b_m where P exceeds $5h_o$	max.	26.1"		29.2"		32.2"	
h_o		5.91"		7.08"		8.26"	
h_1		18.9"		21.7"		24.8"	
h_2		7.54"		10.63"		12.21"	
h_3 for $\frac{3}{4} l_r$	min.	22.9"		26.8"		30.7"	
a_1		8.26"		9.05"		10.23"	
$a_2 = \frac{1}{2} b_2$		27.6"		30.7"		33.9"	
W = mean height of washboard	min.	4.72"		5.12"		5.50"	
l_r in ver. plane 1,	min.	5'-7"		6'-6 3/4"		7'-6 3/4"	
Height of mast above deck at side	min.	31.85'		36.41'		41.70'	
Diam. round mast		4.53"		4.92"		5.51"	
Wall Thickness		.91"		.98"		1.10"	
Area of Cockpit	max.	19.36 sq. ft.		23.68		29.02	

1 Meter = 3.281' = 39.37"
1 Sq. Meter = 10.76 sq. ft.
1 Kilogram = 2.205 lbs.
1 Sq. Cm. = .155 sq. in.

will make excellent racing models, as they are an easy type to build, not too heavy for their size, and of good sail carrying power. The restrictions for models might well be boiled down to those relating to displacement, freeboard, maximum beam, bow section beam, mast height, and a draft limit imposed.

A little study will show that the shape and area of midsection are closely regulated but that great flexibility in length is permissible without variation of displacement. With the length greatly increased over the length of a Universal Rule boat of the same displacement, we have a boat with a smaller and more wholesome proportion of ballast to displacement and easier underbody lines. It should not be thought of as a big, low cost boat with a small rig, for the size (as measured by displacement) and cost, which vary closely with displacement, are about the same as for a Universal Rule boat of the same sail area. The greater length and easier lines produce greater speed and it is this factor that constitutes the valid reason for interest in a class of foreign origin.

A 31-Foot Keel Canoe Ketch

THE design shown here grew out of a summer's sailing and racing in a 17-foot double-rig canoe, and is an attempt to utilize the lively, fast and easily driven canoe form on a scale large enough to provide greater inherent stability and sufficient space for accommodations for cruising, as well as greater seaworthiness.

The leeboard of the smaller canoe has given place to a long, fairly deep keel which provides means for hanging the rudder. The spray hood has given place to a deck, trunk and cockpit, and the steering paddle to a wheel. The addition of ballast gives the necessary stability. About two-thirds of the ballast will be in the keel; the remainder, inside.

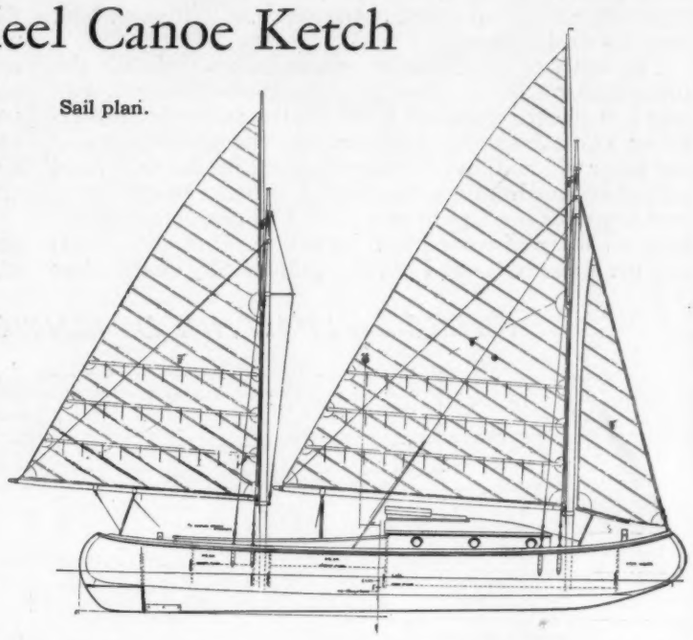
The construction is that of the typical small yacht, making it unnecessary to cover the skin with canvas, which is used only on the deck, and the floors and sides of the cockpits. The scantling is sufficiently heavy to insure that she will be able to take punishment without straining and racking herself.

The lines shown follow those of the typical 18-foot canvas canoe, with one innovation only, that of moderate flare at the bow. This was given her to overcome the tendency of a canoe to slice into a sea up to the gunwale forward when traveling fast in a bit of chop. This flare is entirely above the water line.

The usual double sail canoe rig, probably more extensively used on Sheepshead and Jamaica Bays than anywhere else, is practically the ketch rig without a jib; hence the adoption of the ketch rig for this larger boat.

A track is shown for the main and mizzen and their respective gaffs. The latter hoist chock-a-block to the masts, giving a jib-headed sail in effect, but allowing the use of shorter masts. The hoist on track is so proportioned that the gaffs are slightly shorter than the booms.

The accommodations, while simple, are such that two can cruise comfortably—two transoms, space in the after



Sail plan.

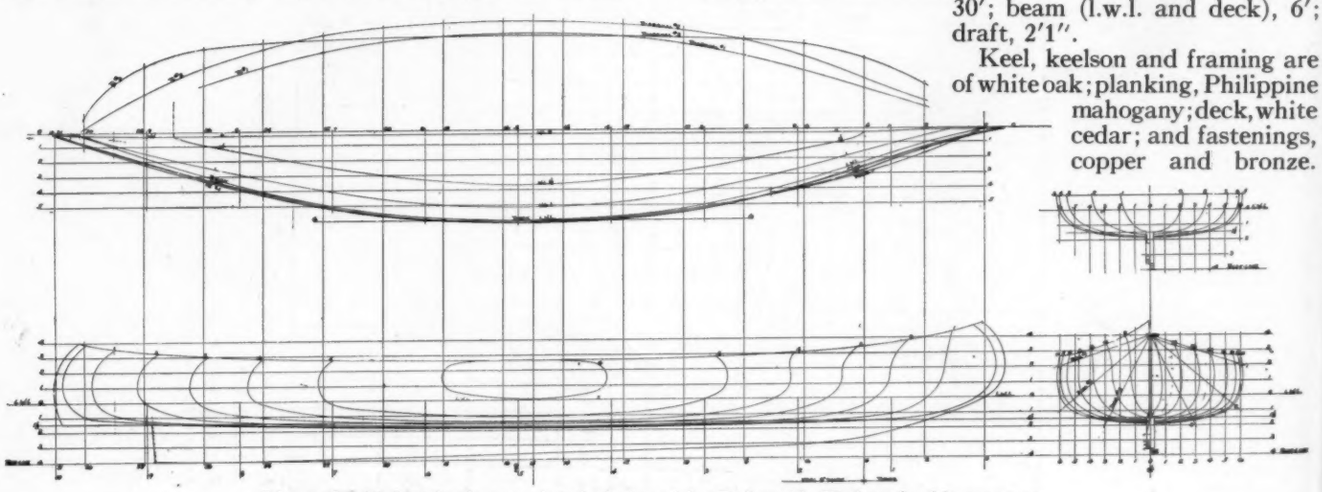
end of cabin for cooking on one side, and a locker for stowing clothing on the other. A yacht closet at forward end of transoms, and more space for stowage forward under deck, covers the description of things below, for this is no *Aloha*.

A deck-scuttle in the fore deck gives access to things forward, as well as good through ventilation. With an awning over the main boom laced down to the coaming, two more could make up their berths in the cockpit.

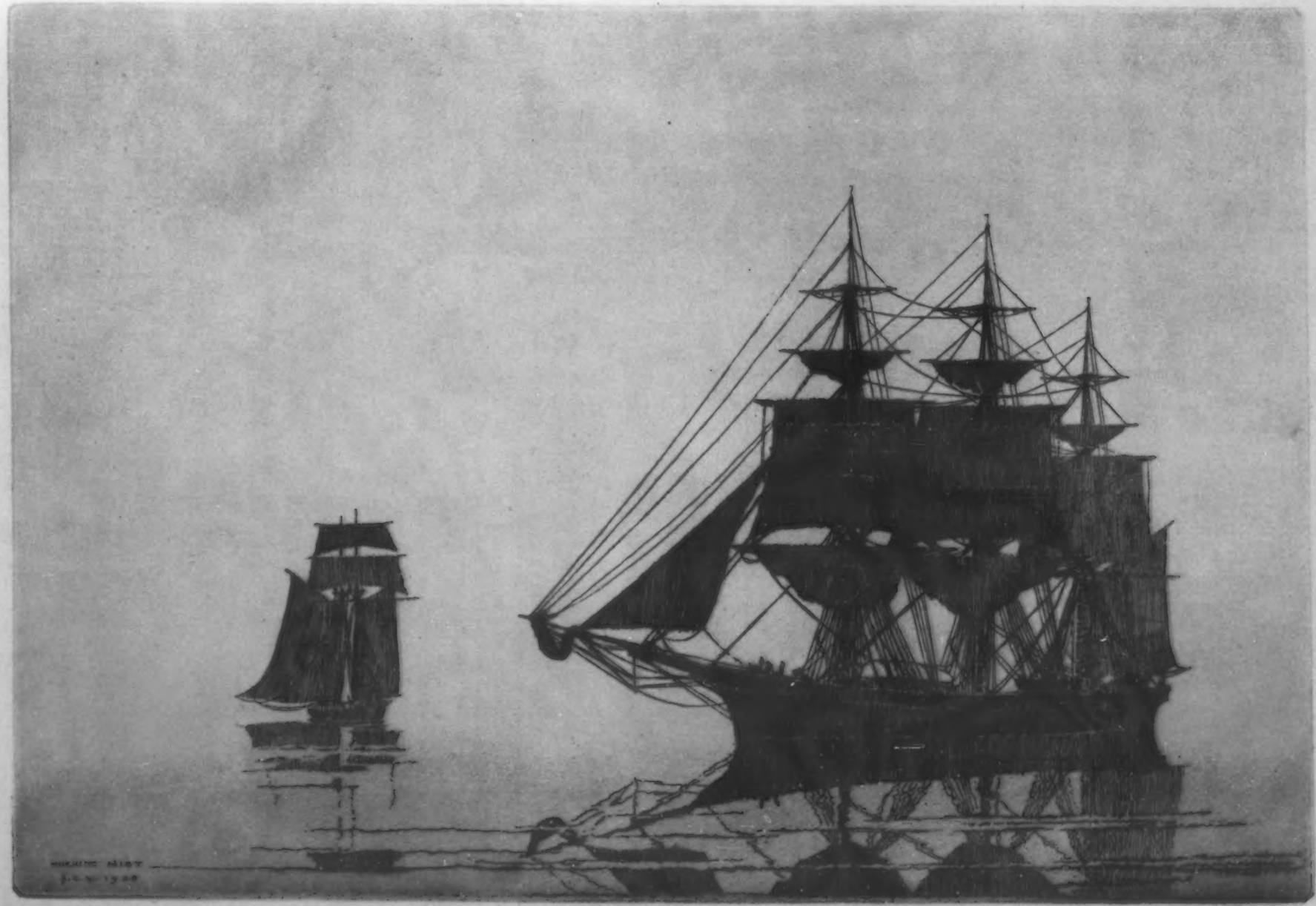
The estimated cost for the boat, completely rigged, with sail covers, two anchors and cable, and side and anchor lights is $2,400, steering gear included.

The general dimensions are: l.w.l., 31′; length on deck, 30′; beam (l.w.l. and deck), 6′; draft, 2′1″.

Keel, keelson and framing are of white oak; planking, Philippine mahogany; deck, white cedar; and fastenings, copper and bronze.



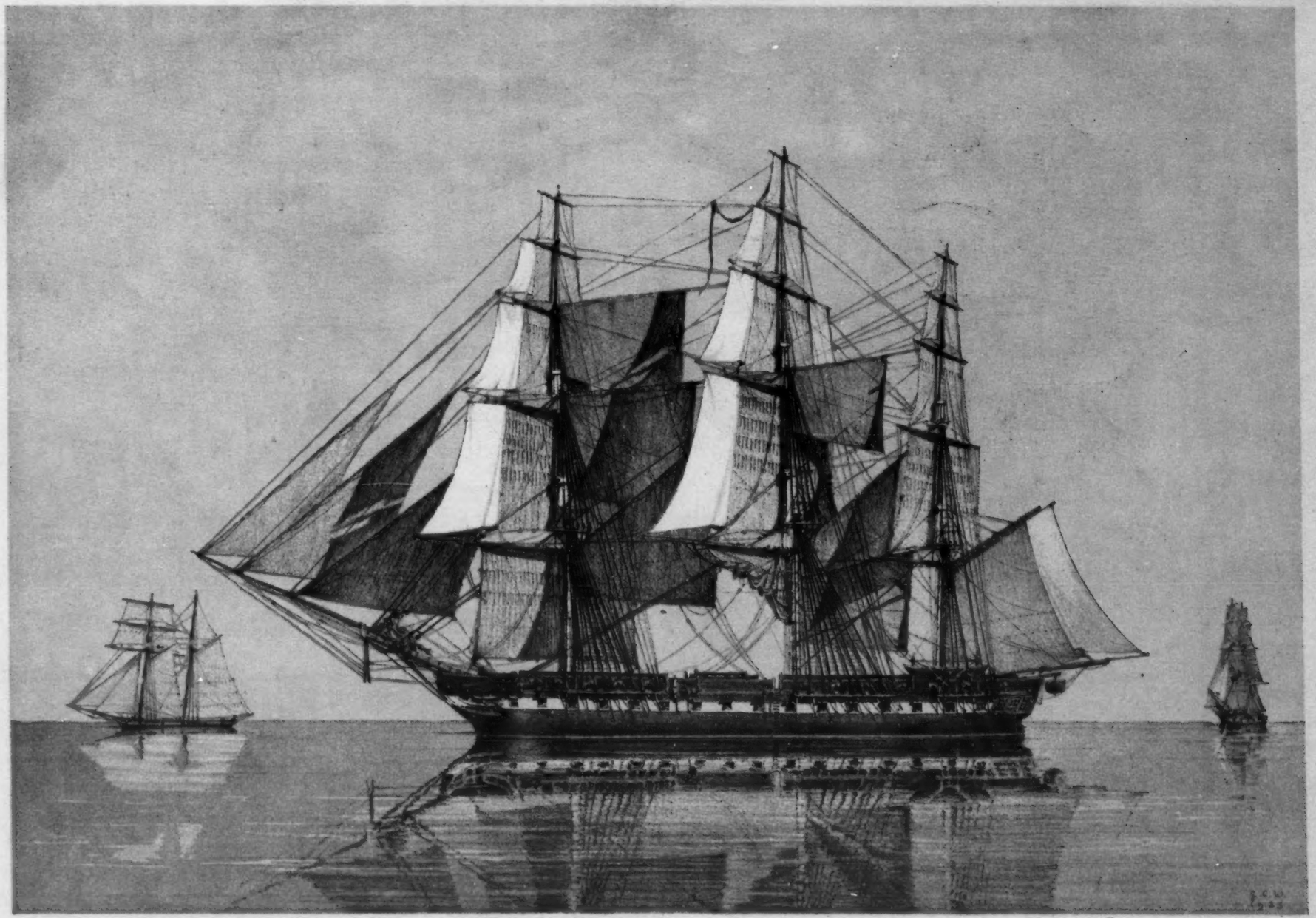
Lines of a 31-foot keel canoe ketch designed by Robert D. Hedges for his own use.



MORNING MIST.

A recent etching by George C. Wales, whose work in perpetuating the American sailing ship of the period 1780 to 1860 is gratifying to yachtsmen.

(Courtesy Charles E. Goodspeed & Co., Boston)



THE 44-GUN FRIGATE *CONSTITUTION*.

A fine example of the lithographic art of George C. Wales, from his series, American Ships.

(Courtesy Charles E. Goodspeed & Co., Boston)

Monhegan Light, on the high land in the center of the island.

Lessons in Landfalls

By Alexander Forbes

LAST year I described two incidents which occurred while cruising in the *Black Duck* on the Nova Scotia coast, in which fog and confusion prevailed. I was gratified when J. T. Rowland, extolling the educational value of mistakes, congratulated me on reporting the "busts" we had made. Inspired by his words, I have searched through the memories of this year's cruising to see if I could dig out any more blunders worthy of his high educational standard.

A centerboard damaged among the shifting sands off Cape Cod, due to an excess of faith in the accuracy of the chart, comes readily to mind. Southbound around the Cape in the *Black Duck*, with a very light S.W. wind, we were unable to make progress beating against the strong head tide running through Pollock Rip Channel. For a time we outwitted the tide by beating up in the eddy of Bearse Shoal, north of the Slue, and then returned to the channel over a corner of the shoal, where the chart showed nothing less than seventeen feet. A narrow ridge of sand with only eight feet of water on it caught the board, and the force of the tide gave it a vicious wrench before we could pull it up and slide on into deep water. A change from seventeen to eight feet, close to the channel, is a rather serious matter, but the area to be covered is so great and the sands shift so much that the Coast Survey can hardly be expected to keep even an approximate record of the topography of the bottom.

But there was another incident which, though it does not qualify so well under Rowland's soul-searching criterion, was perhaps more interesting and instructive than the annoying incident of the bent centerboard.

On July 21st we took our departure from Pollock Rip at 10:20 P.M. in a light south wind and laid our course for Monhegan, N.E. by N. 5/8 N. At noon next day, the wind still very light, we dropped the Provincetown monument over the southwestern horizon. With excellent visibility and a fair wind to Monhegan, only one hundred miles away, it might seem that to "shoot" the sun with a sextant was more of a pose than a useful adjunct to so simple a problem of navigation. But with a new chart table installed in the boat, with the luxury of the tables in H.O. 203, a brand-new interpolator to work them, and, finally, Stetson's new plotting board for the finished product, navigation was relieved of all its irksome features and converted into an orgy of play, especially for one who likes mechanical toys; and as it turned out, every bit of information afforded by the sun was of inestimable value before many hours had passed. At 2:10 P.M. (daylight saving time) a string of sights gave a line of position checking well enough with our dead reckoning; and we supposed it would be all dead reckoning from then on, for the sky was clouding over. At 4:25 the sun suddenly appeared again through a rift in the clouds. Another line of position was perhaps superfluous, but the gadgets were fun to play with; so I grabbed the sextant and put it through its paces once more. The new line of position, almost parallel with our course, was three miles east of our D.R.; on the strength of it we changed course one-eighth point to the north. That change was not much, but it probably saved us some anxious hours later on.

After this the weather grew rather mouldy. The wind freshened a little and backed into the S.E., the barometer fell slowly, and it began to rain. With the wind on the quarter we logged eight knots during the evening, and the prospect of seeing the powerful light on Monhegan soon after midnight seemed excellent, for though it was now raining hard, there was no fog in sight. By midnight (daylight saving time) our log reading placed us six miles from Monhegan Light. On a clear night we should have seen it long before this, but nothing could be seen now but a murky and rainy night sky. By 12:30 we began to make an intensive study of the possible dangers in the event of an error in dead reckoning and a consequent failure to see Monhegan at all. As an aid to this study we decided to

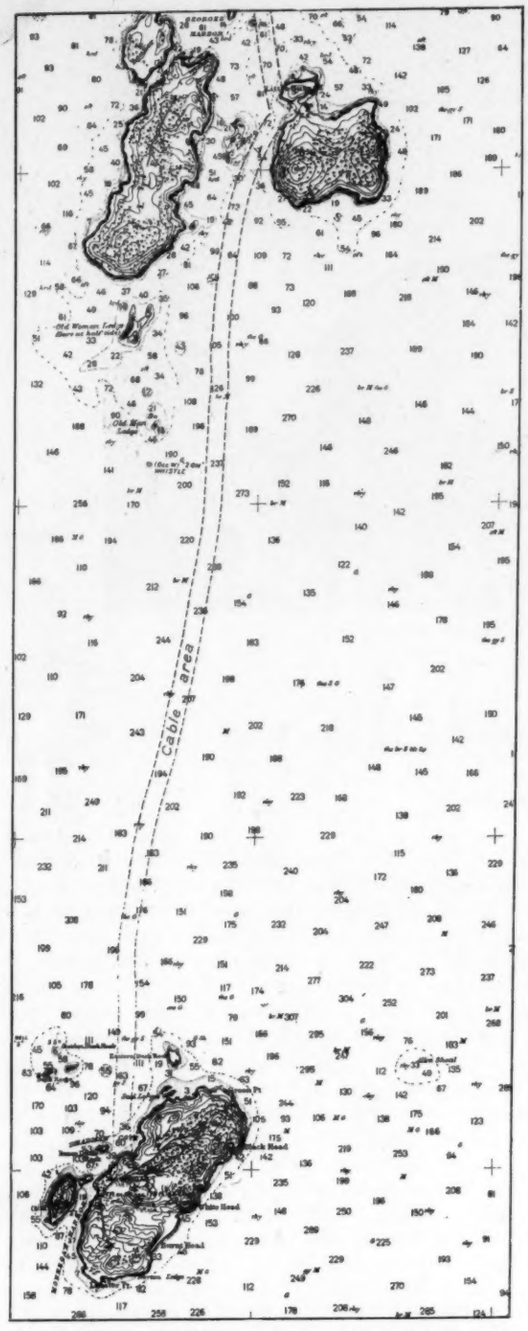


Chart showing Monhegan and the islands lying inside of it.

sound with the depth gauge, although the bottom is so irregular that a fix by that method would be exceedingly difficult. Unhappily, the line furnished with the depth gauge had lain neatly coiled in its bucket since the previous summer. When about sixty fathoms of it were out a rotten spot was reached and it parted quite unceremoniously. Anyone who can find that depth gauge can have it.

At 1:15 A.M. the wind had backed to E. by N. and we were almost close-hauled. Our D.R. position was now about a mile from the south end of Monhegan Island. A line drawn on the chart to include our present position with certainty, making the maximum allowance for errors in course and distance, enclosed an area extending from the north end of Monhegan for five miles southward, and from longitude 69° 14′ to 69° 25′ — a distance of eight miles or so east and west. Clearly the only possible dangers ahead on this course were S.E. Breaker and Roaring Bull, and we certainly had four miles to go, at the very least, before we could reach either of these. I therefore decided to continue three miles farther, and then if nothing had been seen, to lay-to till daylight. The prospect of so doing was not at all inviting, for with an easterly wind there seemed a fair chance that fog might settle down on us for a matter of two or three days and keep us rolling around in a state of dismal and ever-increasing perplexity.

At 1:40, when we had run two of our three remaining miles of grace, a light appeared, flashing close to the water on our port beam. We immediately ran off straight for it, and at the same time began timing its flash. An unmistakable ten-second interval identified it positively as whistling buoy "14 M," lying two and one-quarter miles west of Monhegan. But why on earth could we not see Monhegan? There was no fog, and rain should not obscure so powerful a light as that. Barely five minutes after we sighted the buoy a strange spectral glow of white light appeared in a long horizontal line high above the surface of the water on the starboard bow. Monhegan flashes five seconds every minute; but this glowed continuously and was nothing but a blur. The buoy bore N.W. by W., the blur, N. by W. We luffed toward the blur, and then underneath it there came into view the unmistakable black outline of Monhegan Island. When the shore seemed to be no more than half a mile away, and less than ten minutes after we first sighted the gas buoy, we came about and stood off to the eastward on the port tack, for the wind had now backed to E.N.E. For forty minutes we continued on this tack, logging four miles, and throughout almost the whole of that time the gas buoy continued visible. Twice Monhegan Light was seen by one of the crew, flashing so brightly that it looked like a searchlight. The rest of the time it remained invisible.

Shortly after we tacked again to the northward, I was below, putting on some heavier underwear against a long watch beating to windward through the islands in the chill of the small hours, when there was a resounding crash forward, followed by a somewhat generalized commotion. There were competent hands on deck — far more competent than I should have been, wearing my trousers as a pair of hobbles around my ankles; so I let them cope with the situation till I could snug down my attire a bit. It transpired that the shackle, which secured the jib stay to the bowsprit, was gone — probably the pin had dropped out, and the jib and stay together were flapping against the gunwale. The jib was then stowed on deck, and inasmuch as the forestay was extra strong, we continued on our way without concern as to sinister consequences. The incident did no harm, but added a touch of adventure to a night already giving us a fair quota of thrills.

At 4:15 A.M. we passed close to the north end of Burnt Island, one of the Georges. A gray dawn was breaking, and the trees on the top of the island were slightly blurred by low lying clouds. By daylight we were close to Mosquito Island, and now Monhegan Island was clearly visible nine miles away to the S.W. At 7 A.M. we dropped anchor in Tennant's Harbor to enjoy a breakfast at our ease and to replace the lost shackle on the bowsprit.

What had been the matter with Monhegan Light? Putting together all the evidence — invisibility, while a puny gas buoy flashed clearly at twice the distance, the two dazzling flashes later on and the clear visibility of the island when daylight came, the crew unanimously agreed that the light must have been out of order. I wrote the Superintendent of Lighthouses, and after time for the necessary inquiry, received the following reply: "It has

(*Continued on page 112*)

The Little Ship Club

A Unique Organization of Sailors Who Cruise in Small Boats from Choice

By H. Warington Smyth

SOME two autumns ago a few London yachtsmen, distracted by thoughts of the closing season, and unable to maintain their craft in commission during the winter months, decided to escape from the golf fiend and the non-understanding landsman to a refuge at the "Old Ship" Tavern, Whitehall (a hostelry which has fed more than one of the Lords of Admiralty) where they might "yarn" with their fellows without fear of boring or of boredom.

In November, 1926, there were signs of growth, and 27 members, with Dr. Claud Worth (famous for his yachts *Tern I* to *IV* and his books on yacht cruising) as commodore, formed the existing club. At the close of 1928 the membership approached four figures.

The activities soon outgrew the original intention of providing a meeting place in which to "yarn" over past battles with distracting binnacle lamps, bunged up Primus, future prospects, dream ships and ideal cruising. Though every Tuesday a portion of the membership may now be found in the "Old Ship" Tavern, Ivy Lane, Newgate (to which address the club has just moved), engaged in this very pursuit, an equal number may be found attentively absorbing lectures on navigation, yacht design and practical demonstrations in seamanship from one or another of the more experienced members, who include officers of the Royal Navy, the Merchant Service, Trinity House Pilots, skippers of old square-riggers, and everyone, young or old, man *or woman*, who loves the sea.

The subscription and entrance fee to the club is small. Everyone who has an interest in the sea, whether he be one who races, cruises, "motor boats," or potters about in a cranky pram dinghy is welcome and it is not outside the limits of prophecy to say that as the club strengthens it may become a veritable A. A. of the sea — for the matter of that, of inland waterways as well.

Other activities range about a most comprehensive library, sets of sailing directions, charts, designing instruments and other such equipment. A crew's committee puts those who have no craft, but wish to cruise, into touch with owners who are short-handed. A pilotage committee collects and correlates navigational information particularly useful to the yachtsman from all over the world. A journal is published during the winter, entirely by volunteer effort, and this has been praised by professional journalists. A liaison committee keeps in touch with other clubs and organizations throughout the globe and members are registered from all parts of the world.

The club burgee consists of dark blue and light blue, divided horizontally with a white triangle in the center, signifying the "Little Ship" on the dark blue sea with the light blue sky above. During the past season it has been seen flying from numbers of gilded trucks and dilapidated trucks at Cowes and to the eastward, but it has not so far become prevalent in the English West Countree. This state of affairs, it is hoped, will not exist in 1929. An additional branch of the club has been formed at Dartmouth and has already attained a membership of 46.

The "Little Ship Club" is not of necessity a racing club, though its members provide many of the crews for ocean racing and it is keenly interested in the proposed race to Santander mentioned in our columns. Members who join this, or any other of the branches around the coast and overseas, receive the journal of the parent club and through the branch affiliation have the privilege of attending the London meetings whenever they are in town. But, as the commodore appraises membership in the organization, "Every member must put into it a little more than he takes out."

The club has been brought to its present pitch entirely by voluntary effort. Members have lectured, contributed to the journal and have served in other capacities. There is no denying the present increasing popularity of cruising, whether under sail or power, and all those who fear the first step through lack of experience can do no better than join the club, whose primary aim is to assist all, and where sailing man and power man may meet on common ground. How about a New York branch?

(At left) Dr. Claud Worth and Mrs. Worth (center), with Lt. Com. Douglas Dixon at the rail, and Isaac Harter, of *Seven Bells*, on board *Tern IV*.

(Right) *Jack Rabbit*, a 14-foot National Dinghy flying the burgee of the Little Ship Club at Dartmouth.

That First Long Distance Race

A Story of Last Year's Race to "Blockers"

By FREDERICK J. STEINHARDT

"TWO minutes!"

"Har-r-rd a-lee!" There was a whine of blocks, a thumping as the main boom swung across the deck, then a crash and a hiss as *Nike's* swiftly swinging bow met a big one on the way about, throwing a foaming mass of white water over her glistening deck, and on the oilskins of her crew.

"One forty-five, thirty, fifteen, ten —"

"Hard-a-lee!" And *Nike* spun about again in time to receive a mighty shove from an impatient graybeard, hurrying northeastward.

"Fifty, forty-five, forty," — that dancing green space designated as the starting line, now the horizon, and now a valley, between the white committee boat and the tiny red and black buoy, appeared to be rushing towards us at a terrifying speed.

"Thirty, twenty-five —" *Nike* bore off and then luffed sharply, then bore off again.

"Fifteen, ten —" *Nike* headed for the line.

"Five, four —"

"Ease your jib sheet a little — that's it!"

"Two, one, — Gun!" And *Nike*, with the wind whistling over the beam, through the straining backstay, and shouldered along not unkindly by the short gray seas, was off, just as if she were starting an ordinary afternoon race.

Yet this was no ordinary race for her or for her crew. It was their first attempt at "ocean racing," and however small an achievement the run down the Sound to Block Island may appear to an experienced cruising man, to us it was a glamorous adventure — our consolation for not being in the race to Spain. Block Island lay beyond the limits of our known world — that is, beyond Long Island Sound. Indeed, only recently had its location become definite to us from diligent study of chart No. 1211, and even yet we had little idea of its actuality. Thus we were on a sufficiently romantic expedition to locate an irregular yellow spot on a chart, situated in the midst of a very real fog, settled upon water proverbially rough. Our elation at having started, and thus having officially severed connections with the prosaic life ashore, may well be understood, and in this feeling we deserve the envy of the more successful skippers to whom our romance was merely an annual race.

And now as we settled down E. ¾ N. for Stratford Shoal, with a fresh breeze right over the beam, we gazed with critical aloofness at our competitors. There, to leeward, beyond the broad creaming swath of foam spreading out from our bow, was the little *Senta*, a Class S sloop, very frail and feminine as her dainty hull lifted over the seas. Astern of us — as yet — was the powerful *Edrelia*, conveying an impression of scornful ease as she foamed along, scarcely rising to the small rollers of the Sound. Then came frigate-built *Rissa*, dogged, determined, and miraculously fast with her enormous old-fashioned rhomboids of sail. *Gleam* breathed an air of efficiency. Like *Edrelia*, the trip seemed nothing to her, and she made it very apparent. Fierce-bowed *Azor*, to paraphrase Masefield, seemed concerned chiefly with her rival, *Young Miss*, whom her name somehow exactly fits. *Malabar II* ambled peacefully after, plunging about like a playful Newfoundland puppy.

We groaned as we saw light canvas breaking out; the wind was too far forward of the beam for our spinnaker to draw, and we had no ballooner. *Edrelia* and *Gleam*, mizzen staysails and ballooners set, soon pulled ahead of us, but as *Rissa* foamed along the clew of her huge balloon jib pulled out, and we began to think she might stay in company with us. Her skipper calmly set another in place of the torn one, and she soon passed well ahead. Then the two sloops passed us, and finally *Malabar*, who had set her balloon jib and fisherman's staysail with the same philosophic feeling for the pettiness of time that she had displayed at the start. As we passed Oak Neck, it began to look as if we were going to be much alone, for *Senta* was dropping slowly astern.

Off Cold Spring Harbor, however, the wind shifted slightly, then blew a strong breeze from about two points abaft the beam.

"Get the spinnaker on her!" cried the Skipper.

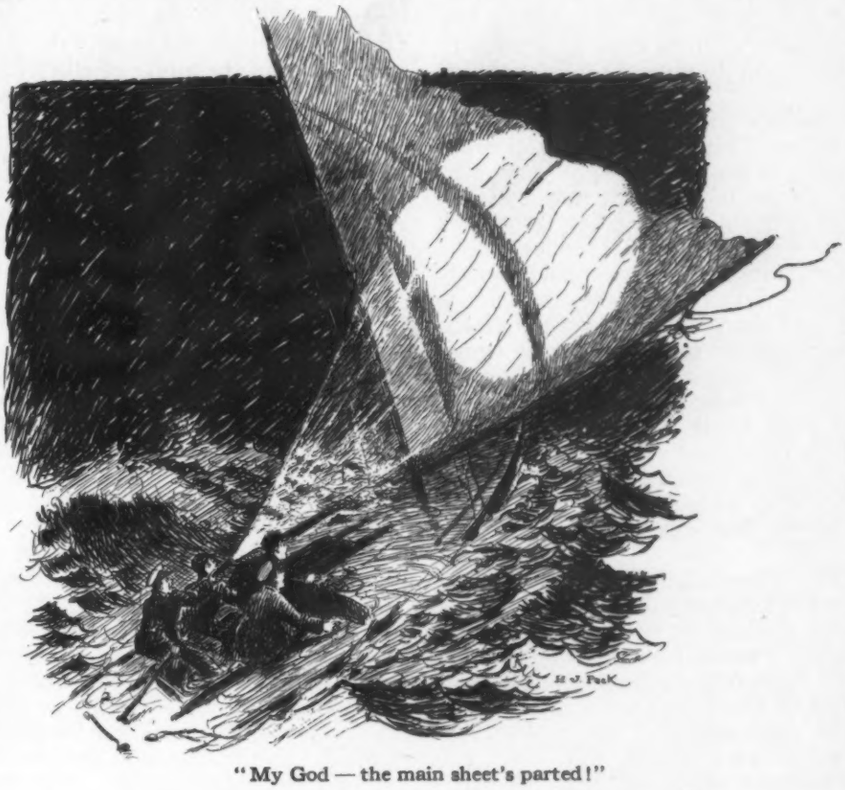
"Break 'er out!" There was a terrific jerk as the sail "took holt." The creamy swath to leeward became broader, the wake astern longer. It was thrilling to watch the white crested waves curling over it, as it closed up astern. Now the boats ahead, except for the two flying leaders, ceased to gain; we were even gaining slightly on the *Malabar*. Rain commenced to sweep across us in sheets, obscuring the tossing path ahead of us and the dancing waves astern. As the puffs, increasingly heavier, raced across the blackened water and howled through the rigging, that distended spinnaker seemed to pull the bow of the boat right out of water. We could feel the pull on the backstay chain plate, vibrating through the ship; we could hear the strained sides groan. The Skipper, glancing at it appraisingly, repeated, "Best galvanized plow steel wire, guaranteed to support a strain of five and one half tons." It was comforting, for we knew that the spinnaker would go before that stress was reached, and toward that accident we were comparatively indifferent; in fact, we had secret hopes, for in ocean racing light sails are carried away regularly. It is the custom, so we had stopped our other spinnaker in order that no time should be lost setting it should the first blow away.

As the afternoon wore on we gave more and more attention to cloud effects, for the fleet ahead was staying ahead, and the *Senta* was dropping farther astern. The cloud effects were well worth attention — the sky was covered with billowy gray cloud that seemed to emulate the sea beneath. Below this were battalions of white scud rushing across the sky like racing yachts in weird topsy-turvy mimicry, mingling from time to time with loose folds of gray cloud that descended in torrents of rain at irregular intervals.

Now came one of the great moments of the day. As we rushed along, a distended mainsail balancing a bloated spinnaker, and a long band of white stretching away from either bow, we passed a cruising boat which had just substituted a storm trysail for a reefed mainsail. We remembered stories of the *Lightning*, bound east, and carrying royals and stunsails while passing ships hove-to. Yes, this race was the real thing and there was no question but that this was hard driving in the good old Yankee tradition.

This stage of the race was the most perfect of a perfect event for the Skipper, but the crew must have had their

pleasure considerably allayed by the really hard work of trimming the spinnaker to meet the somewhat shifting breeze. Every time the guy had to be either slacked or taken in meant strenuous hauling for all three men — one on the cleat to take in the slack, the other two braced against the break of the deck, either to gain a few inches, quarter-inch by quarter-inch, or to prevent the guy from going out at a rate to burn the hands of the holders. They looked enviously at the Skipper, twiddling a little stick with a few fingers of one hand, and they cannot be blamed. There could be no change of occupation, however, for the one was not a Corinthian, and therefore could not take the helm, while the other two could not steer well enough to be entrusted with the tiller in a heavy sea.



"My God — the main sheet's parted!"

After Stratford Shoal was passed (I am unable to give the time, as our log book was washed overboard later) it became quite murky, with driving mist shutting both shores from sight. The wind freshened, coming in increasing squalls with rain. Here the first tactical mistake was made, for the yacht was allowed to deviate from her course to Cornfield Light in order that the spinnaker might be kept on. It became necessary to bear off somewhat in the squalls, an error which we attempted to compensate by bearing up between puffs. Finally we made out the Long Island shore, and then Horton's Point Light, which had just been lighted for the night. Then it thickened again, shutting everything from sight, not with a curtain of fog, but with a solid substance, largely water, through which we rushed our solitary way. By this time the *Senta* had been lost to sight astern, and we did not see her again. Shortly thereafter, it really commenced to blow, in long puffs that increased gradually, with a snarling whine of rising pitch. The boat shuddered and trembled, stooping under the increasing load of a spinnaker set well forward. Suddenly came a puff stronger than the preceding, and *Nike* buried her cockpit combing and tried to slide sidewise, while her stout spinnaker boom bent ominously.

"Slack that main sheet!" Temporary relief was purchased by bearing off, and it was wonderful to see how she responded, rushing madly to leeward, more out of the water than in it. When the puff slackened *Nike* came back on her course with spinnaker braced forward sharply. Again the same thing happened, and was met in the same way. This would have to be stopped, though, or we would be in Saybrook, instead of Block Island. Take it in? Did Captain Samuels ever take in sail? Could we stand it any longer? Would we perhaps go better without it? The pain of decision was averted by the spinnaker itself. There was a sharp crack; the bent spinnaker pole suddenly straightened out and flew forward. Exactly what happened the Skipper will never know; one instant the spinnaker was flying loose forward, the next, the Mate was crouching over a tamed spinnaker meekly reposing in his arms. The boom also was safe. The only thing damaged was the after guy hook of three-eighths-inch bronze, which was straightened out beyond all hookedness. For some reason or other, there was no talk of setting another spinnaker!

Shortly after this Cornfield Lightship was sighted off the lee bow. "We won't waste time running off there; we'll just take a bow and beam bearing and lay a course for Plum Gut from the result," said the Skipper, with the confidence of school-book navigation. The first bearing was taken "approximately," that is, somewhere between 30 and 60 degrees, our speed estimated at between 7 and 8 knots. But unfortunately, by the time Cornfield should have borne abeam, it was so thick that neither Cornfield nor anything else was visible — or audible.

"I thought I saw that Cornfield Light buoy off there before it closed in," said the Mate, pointing widely at the darkness off the lee bow.

"Well, lay a course from there to Plum Gut, and we'll run it," said the Skipper. When the result of the battle of the parallels and the chart was announced, *Nike* was brought on the wind in the fond expectation of making Plum Gut. We make no apology for our folly; we knew no better then, although we do now.

The thickness cleared off, and right ahead on our course we made out a brilliant clump of white lights. "That must be Plum Gut. Look in the light list."

"Light 1.5, eclipse 7.5 — There's a blinker there, count it now."

"One, two, three, four, five, six, seven, eight, nine, ten —"

"Hey, there, what's the rush?"

"One — two — three — four — five — six —"

"Six what? Minutes?" More counting.

"The best I can do with that is — light 5 seconds, eclipse 3."

"But that's wrong, it's light 1.5 — eclipse 7.5."

"Well, *you* try it then."

"I can't, I'm trying to keep this hooker going straight; I can't do everything."

Chorus. "One one, two two, three" (the last in unison).

It proved impossible to make it coincide with Plum Gut. In fact, it never counted out the same twice, however much it persisted in avoiding that 1.5–7.5 interval.

"Well, try and find the Oyster Pond Light. That's a

fixed red, and you can't count that wrong," advised the Skipper, with the air of a great leader making concessions to the limited intelligence of his inferiors. When this proved equally impossible to find, it began to be serious, as the lights were now by no means far away. So *Nike* came into the wind, with thundering sails, while the Skipper profanely adjured his crew to find *some* light — somehow.

"There's Plum Gut," suddenly cried the 2nd, pointing to a bright light that had just vanished some distance to leeward.

"Where?" asked the Skipper, savagely.

"It just *was* there, a minute ago," the 2nd persisted, eagerly. "There it is again," he said, interrupting the Skipper's profane commentary on his eyes. It seemed to answer to Plum Gut, but again the elusive red light baffled certainty.

"Listen, we've lost the race and tide, but at least we're going to know where we are. This slipshod navigation has got to stop. I'm not going to track every light your overheated brains discover in the hope that it may be Plum Gut. There's Cornfield over there. I'm going right back there till we get so close we can touch it. Then we'll lay a course from there, and not 'any point within twenty miles thereof,' and then go right through the Race, which is wide, easier to find, and shorter, now that the tide has changed. You have occasionally manifested some symptoms of intelligence, Fritz; you help me by laying the courses right, and I'll steer them right. No more guess work! We're going to *know* where we are and then even check that up." Which important resolve was perhaps cheap at the price, for many a man learns the value of careful navigation only after he has run his boat ashore. Therefore, I do not regret that incident, in spite of the time it cost us.

We sailed up to within a boat's length of Cornfield, and then headed for Little Gull Light. It had cleared off perfectly by then, and our navigation, conducted according to the new principles, was a model for a piloting class. We took cross bearings on Saybrook, on the Cornfield Light buoy, on the two lights off Plum Gut, on Race Rock, on Little Gull Island. Yes, there was no doubt that we were headed for the Race; we were getting there fast, too.

We had heard that the Race was somewhat rougher than Plum Gut, but that did not bother us. Suppose we did ship a little water! The rougher the better. At least it was no microscopic crack in the wall; it was a fair double door, four miles wide, and well lighted. We were going to Block Island by the main avenue. Tide rips, I might say, connoted with us such a place as that well marked line in the water where the strong ebb tide from Stamford, Huntington Bay, and Cold Spring Harbor converge. Of a tide rip, full grown and roaring, we had no conception. *Beatae Simplices!*

Through the darkness, glowing with lurid phosphorescence and ghastly white foam, and filled with these austere presences, *Nike* ran, half frightened, sowing emeralds and rubies from her side lights, and scattering spray with generous abandon. Cornfield was out of sight; Plum Gut veiled and disclosed its Polyphemic eye with severe monotony; Race Rock bore abeam. An unusually hard shower of spray came aboard, and that was all. "Is *this* all there is? Why, we hardly felt it. So this is 'The Terrible Race'!"

Suddenly *Nike* began leaping up and down excitedly. There was a violent hissing, a terrific crash, and instead of the friendly face of the compass, there was a seething mass of dark water flowing around my feet, while above an incessant, harsh roar could be heard a regular crash and a dull thud. Looking up from the water over my feet, I saw a descending mountain roll right over the dimly seen deck. There were eternal moments when the sensation of being on a boat was completely lost, when we seemed to be struggling in the engulfing water.

"Hold her off, Fred, hold her off, for God's sake!" the old fisherman, my right hand, urged.

"I am," I no less passionately insisted, but *Nike* did not seem to answer. We had lost sight of her. She had perhaps foundered. I reached for a flashlight glowing dimly on the floor of the submerged cockpit, turned it on the sail, and rose to my feet in horror. There, glowing white against the blackness was the mainsail, flat against the sharply marked sidestays and crosstrees!

"My God! the main sheet's parted!" There was a moment of terror-stricken gazing, while the sight of that mainsail, white in the glare of the powerful flash, fixed itself forever in the minds of the *Nike's* crew.

"Some line!" George dived below between waves and slammed the hatch closed over him. What his sensations were, groping for a line in the confusion of the chaotic cabin, with the crash of water above, below and on all sides reverberating hollowly, it is difficult to imagine. At any rate, in an incredibly short time the hatch spewed out the two spinnaker guys, the bucket, and George, and slammed shut again, just ahead of another sea, which rolled over the deck.

Then the two boys hauled in the thrashing main boom, with the lee backstay, while our fisherman, preserving his balance on the deck in some miraculous manner, quickly rove one spinnaker guy through each of the main sheet blocks, and trimmed them in. A few more spray-filled moments, and we were rolling placidly down the long rollers of Block Island Sound, making a hasty survey of the damage, and revelling in the feeling of again breathing air unmixed with water.

Flashlight inspection showed all the gear sound and no damage except for loose gear washed overboard, including the Second Mate's hat and the Block Island Harbor chart. The water had affected the wiring in the binnacle light, making it necessary to steer by flashlight on the compass—a difficult and eye-straining task. The combination sailing light on a bracket at the base of the mast was dark. It was suggested that some one go forward to relight it, but the morale of the crew had been washed out, and no one went.

We now rejoiced in the peace of coasting down long, regular seas and sliding up the one ahead in a smother of phosphorescent foam that trailed off in a long fiery V astern. Almost immediately, we were swallowed up in blackness, losing sight of all shore lights. Even the water below had little more reality than the blackness above. It was a pleasant feeling, for *Nike* was a planet from which the ills of human society were at least temporarily banished. A world at peace and unity with itself is a blessing, even for an hour. There was one respect, however, in which our planet was inferior to the other planets which pursue their steadfast course unmoved and unchangeable: *Nike* was being guided by the flickering beam of a flashlight illuminating the blurred face of a swaying compass. A wind that varied from dead astern to impossibly more dead astern, added to the complications, and caused considerable deviation from the correct course, an error which was only approximately corrected by bearing off every time the wind permitted. Even when calculations proved that Block Island Light would hardly be sighted within an hour, eyes were bent anxiously over all points of the horizon, hoping for some faint light by which to establish our position.

At length lights began to be spotted in all directions, but they could never be seen by more than one member of the crew at a time, and all proved to be merely those

(*Continued on page 106*)

Experiences with a Fast Cruiser

Something on the Ever Pertinent Discussion on Light vs. *Heavy Displacement for the Cruising Yacht*

By L. Luard

EVERY yachtsman has, of course, his own opinions about the performance of different boats, whether or not they are the result of actual experience. When I started cruising I was warned by enthusiastic protagonists of the demerits of every type but their own. I listened to innumerable discussions and arguments, to heated controversies, to unabashed falsehoods, and I concluded that, like her owner, each boat had her good and bad points and was composed of compromises and conflicts.

Then I, too, became an owner. I tried several types, and more than once was deceived by paint and putty, finding myself with a cumbersome crock on my hands. Eventually, I bought an ex-Ten-Metre boat. People said I was mad: all racing boats were mere shells; their useful life was limited to a few years, as composite fastenings corroded; in a seaway I would find the boat wriggling like an eel; she would strain herself — if she had not already done so long ago; and she would surely open up and drown me. Nevertheless, I went ahead and the more I learned about her, the more fascinated I became. But then I am young, and youth is hard-headed, impulsive, disdainful.

***Maitenes*, an ex-Ten-Metre which the author found an ideal fast cruiser and an excellent sea boat under trying conditions.**

She was no mere shell. Her construction was stronger than that of the average cruiser. I compared her scantlings, once, with those of some "Twelves" and "Fifteens," and I found that, relatively, they were far sturdier. But I learned afterwards that the boats of this class were built with exceptional heaviness and strength.

Two of us sailed her across the North Sea in a breeze that knocked up a confused, breaking, stern sea. We found she logged eight and more without any pressing. She ran hour after hour, creating no fussed, turbulent wake, but lifting her low, graceful counter steadily, and proving docile and easy on her helm.

I was impressed, but not satisfied. I wanted to see her capabilities in a heavy thrash to windward, and the Fastnet Race of 1927 gave the opportunity. She was wet — that I cannot deny — abominably wet, but so were the others. She pounded, at times, alarmingly, in the short seas off the Wight. But she went through them and worked to windward in a manner that — for a boat only 32 feet on the water line — was amazing. At Start Point — and until we blew our mainsail away — she was only a few hours behind the leaders, and directly she found herself in the longer seas, she foamed into her stride without hammering at all.

But still I was not satisfied. I wanted to know if she would heave-to ably; how long that clean, sweet run would allow her to continue before a heavy, breaking stern sea; whether continual battering to windward would strain her hull and open her seams. And as a preliminary, I had her examined that winter. Not an inch of putty, even, had spat from her seams, and - nowhere was there a sign of strain or distortion.

Well-meaning people told me, when I was fitting out in the spring, that she would want all her standing and running rigging renewed, for was not all her ballast on her keel? And did not this put a merciless strain on every wire and rope aboard her? I found nothing required renewal, and I vindicated my postulate in the Junior Ocean Race last summer, for, at times, we experienced harder winds and heavier seas than in the race of the preceding year. We had, too, an opportunity of solving other problems.

All one night we ran under a two-reefed mainsail and staysail only, logging once ten knots, and nine knots consecutively. We ran on amid a tenebrous immensity and a turbulent breaking sea that needed constant watching, and we concluded that she was, in the circumstances, wonderfully light on her helm. But when the tide — a full spring tide — turned against the wind on the western outskirts of the *Baie de la Seine* we found the tiller trying. Even then she was much easier than a long-keeled, narrow, heavy displacement boat I once sailed in a sea of far less fierceness. To intensify matters — for we were racing and trying to rectify an unfortunate hazard of lost time — we gave her the balloon foresail. We were, of course, over-canvassing her cruelly, and she told us so in no uncertain measure. She ran on, though, courageously, a little faster, perhaps, but laboring heavily. Occasionally an upreared, crested comber broke with a hissing roar, smothered the counter, and streamed overboard like a maelstrom. We held on, realizing that under three reefs and a storm jib she would have been as easy and comfortable as we could have wished. We held on till a sudden squall, bursting like a vial of wrath, ripped our balloon foresail into tatters, and left us staggering under mainsail only.

We feared that she might broach-to, yet she ran on — heavier on the helm — but still under complete control. But the sea increased steadily, and we considered it advisable to heave to. We handed our main sheet, inch by inch, till the boom lay about thirty degrees from the fore and aft line, then, watching our opportunity, we rounded in the lull that follows a really heavy sea. She lay, quiet and steady, about six points from the wind, rising easily to each sea with no wild yawing, and making, perhaps, leeway of three points. For a quarter of an hour we kept her under mainsail only to be certain she was not deceiving us, then hoisted a reefed staysail a-weather. At once, she started fore reaching, making good, as far as we could judge, a course about seven points off the wind. She was still easy and comfortable, but, at times, the fleck from the top of a sea broke against her hull and rose in sheets of spray that drenched the sails.

We were impressed. We felt that on the whole she had given as good an account of herself as an ordinary cruiser, and we determined to listen no longer to adverse voices. We summed her up: She has great speed in light and heavy weathers, though undoubtedly she is wetter in a seaway than an ordinary cruiser; her quicker motion also places more stress on her hull and rigging; but the stronger construction (in her case) is capable of standing up to these greater strains. She will handle like a witch. In narrow channels, in sudden emergency, she will answer to her tiller in a flash, and spin around in her own length. If she has a habit of letting her bow blow down wind, when getting underway, with no way on her, one can counter this idiosyncrasy by allowing her to do so, when she will spin right around, gathering steering speed the whole time. In nearly all weathers fast passages can be made, and if caught out she can be made to heave to. If her accommodations — on tonnage — are a little less than that of a cruiser, she confers a sense of beauty and of speed; she allows one to experience the recurring magic of a joy and exhilaration to which no cruiser can ever aspire.

Undoubtedly, she is a type worthy of consideration — unless it be that youth is hard-headed, impulsive, disdainful.

Sail and Steam

Down by the docks I wandered,
To smell the salt sea air.
To walk once more along the shore,
And see the ships so fair.

A score of years had vanished,
Since I saw the ocean last,
And my heart was thrilled, my eye was filled
With scenes from out the past.

But alas! The clipper ship,
The bark and brigantine
Had disappeared, as I had feared —
Replaced by oil and steam!

Where once their wooden bowsprits,
Their grotesque figureheads,
Their tangle of shrouds, climbed to the clouds,
Were rusty sides, instead.

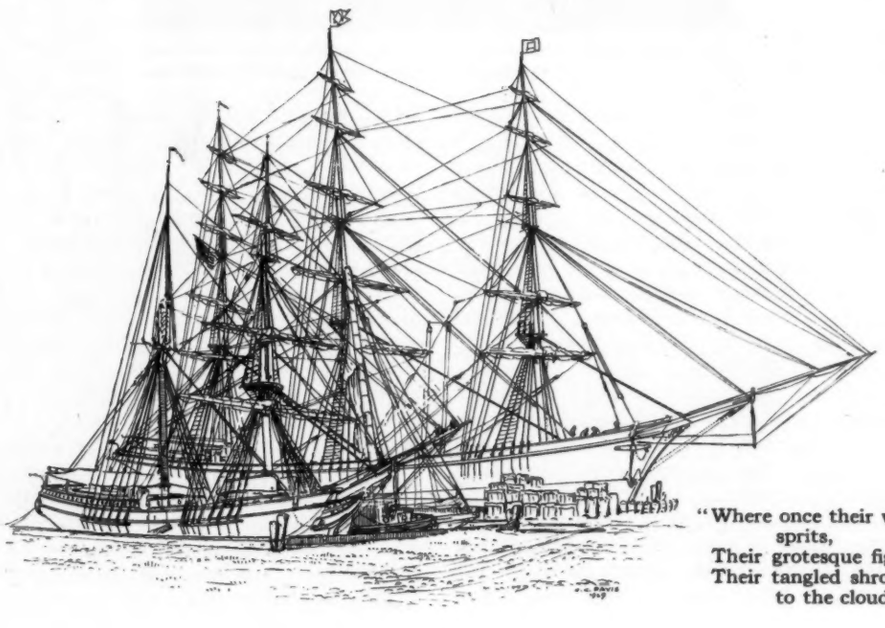
With dragging limbs I clambered
Over a smoke-stained rail,
And heaved a sigh for the days gone by,
Of clean and stately sail.

I made my way below decks,
To the Captain's cabin, aft,
For I hoped that he would talk with me
Of the days of sailing craft.

And there my heart was gladdened,
For on that rusty tramp
I found that he and his men of the sea
Were all of the old-time stamp!

Tho' the sails have gone forever,
These men were sailors bold;
Brave and strong, in their hearts a song,
Like the iron men of old!

W. Woodbury Carter, Jr.



"Where once their wooden bowsprits,
Their grotesque figureheads,
Their tangled shrouds climbed to the clouds —"

"We entered Port Antonio, Jamaica, in the midst of rain squalls — and with some difficulty, due to the heavy swell and lightened airs."

Postscript's Winter Cruise

Part IV — A Thousand Miles in the Trades, Through the Windward Passage to Jamaica, and Thence Around the Western End of Cuba to Havana

By F. Sladé Dale

WHETHER we knew it or not, we were setting out in the face of a Bahama "norther," and while it is well to have respect for anything that can be classified as a storm, the northers are usually overrated, so our position did not seem a particularly dangerous one.

Cat Island, 40 miles east of us, Long Island south of that, San Salvador further eastward, Rum Cay and Conception Island to the southeast — all these looked on the chart like shelter in any emergency. But 12 hours later they had been gobbled up in the darkness, and what by daylight were our points of refuge now became our principal causes of concern. A faltering southerly wind had betrayed us, and at dusk we were in some unknown position in the middle of Exuma Sound, with currents and counter-currents, sets and swirls, all playing havoc with our attempts at dead reckoning.

By midnight we were surrounded by sneaky-looking black clouds; the wind shifted fitfully to the west, then back to south, then northwest for a spell. Our log reading was just sufficient to place us on the northern reefs of Conception Island — a ghastly place for tabloid and steamer alike — or on any one of several other coasts, depending upon where our drift had taken us. The blackness of the night grew deeper and deeper, the water was inky and evil-looking, and there were weird hissing noises around the stern that made the lonely figure at the tiller feel creepy. Something was going to happen pretty soon.

Clouds gathered and scattered, only to join again in greater masses. The wind continued fluky and wavering. An ominous calm, and then a far-off rustle of wind on the water as the squall girded itself and swept down upon us out of the northwest. The fury of the first blast was tempered by the rain that came with it — tempered or intensified, depending upon how you look at it, but somehow a squall with rain seems less evil to me. And then there was the steady roar of the rising northwester as it settled down to business.

The mainsail had been lowered and lashed in place on the gallows frame just as the squall took charge of things, and now we were under staysail and lashed helm, with four anxious hours to pass away before daylight. Prudence told us to turn-to and double-reef the mainsail, so that if we were set down on a shoreline we would have all in readiness for an attempt to work clear. But Prudence does not hold complete sway at two or three o'clock of a dark, wet, stormy night, with a pitching, rolling deck, and stubborn, invisible reef points. Such hours belong to Lady Luck, and with a serenity born of a touch of fatalism we placed ourselves in her care, occasionally scanning the horizon to see if we could distinguish any land rising out of the hills of water piling up on all sides of us.

By morning the seas appeared bigger than the strength of the wind seemed to justify, or perhaps it was their very size which shielded us somewhat from the full force of the breeze. We tested its strength first under staysail alone, and later in the day changed over to the ballooner, which pulled us along at a full six knots. Down along the coast of Long Island, which was a few miles off at daybreak, across Crooked Island Passage at dusk to pick up Bird Rock Light — which we never succeeded in locating, however — and then later on a night of drifting in light airs when the wind and sea vanished mysteriously in the lee of Crooked and Acklin Islands.

And that, so far as we were concerned, was all there was to our "norther"; a rain squall, a hard blow, some big seas, but progress in spite of it. We classed it as a hybrid norther, confused in form and short-lived, but we heard more about it in the next few days, for the natives con-

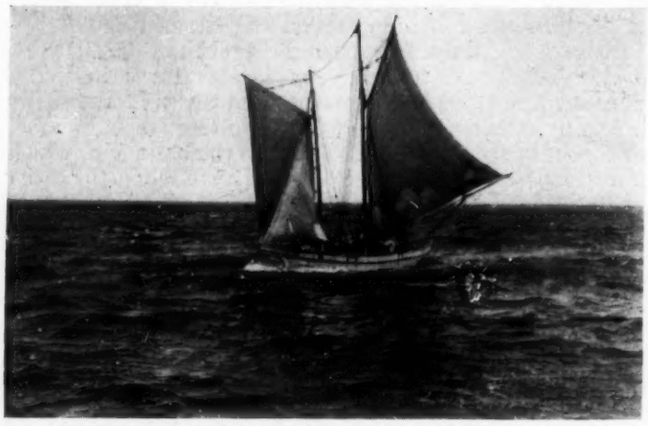
Postscript swinging to her anchor in Montego Bay, Jamaica, 2000 miles from home.

The main street of Mathewtown, Great Inagua, seemed a far cry from Broadway.

sidered it severe while it lasted, and a lightkeeper and a schooner captain, without realizing that we had been in the midst of it, remarked that we "never could have made a go of it." So much for the outsider's judgment in such matters.

Approaching Great Inagua we experienced a sudden scare one night when we almost brought disaster upon ourselves. We sighted the island at dusk, but darkness settled before we could locate our position and by the time the lighthouse came into view it was bearing west of south instead of east of south as was necessary for a safe approach. We lost no time in jibing over and heading due west, and we kept a sharp lookout ahead, although we hardly thought we had approached very close since dusk. Indeed, having no large-scale chart of the island, we scarcely realized that there were any outlying reefs, and the lookout was kept more as a matter of routine. A fortunate stroke for *Postscript!*

We became aware of our danger simultaneously, but in different ways. Pete saw a long ridge of phosphorescent foam on a reef close off the port bow, just as I became conscious of a different heave to the sea. Despite our being on guard we were astonished almost to the point of inaction. For a moment Pete could not speak, and I was at a loss to know whether to jibe or go about. This was *Postscript's* closest approach to certain disaster; if we had been the least bit off our guard — engaged in lighting the lantern or in looking at the chart, as we had been doing just a few moments before — we would surely have piled up on that ledge of rock, and in the sea that was then running it might have been but a few moments before we had a hole stove clean through. A few miles to the eastward a lumber-laden four-master is paying the penalty for the mishap which we so narrowly escaped.



A native fishing schooner "wung out" before the wind, off Esperanza, Cuba.

We jibed off and sailed north for miles and miles, it seemed, before we gained the courage to bear off west again. Then we slowly brought the light to bear properly and about midnight anchored in the open roadstead off Mathewtown. We were at last getting the northeasterly winds which we had counted on, and in three or four days of fair winds we had covered 275 miles as against the three weeks which we had consumed in making the same distance under less favorable conditions.

In the little library occupying the second floor of the government building at Mathewtown we came across a visitors' register dating back to 1905. One of the early entries caught our eye: "Dec. 4, Joshua Slocum," to which had been added in a different hand: "Yacht Spray." A more modern entry under date of Feb. 12th, 1927: "Capt. Thos. Drake, Sch. Pilgrim of Seattle." Awed by these signatures it was with some trepidation that we acceded to the librarian's request and set down "Postscript" in such notable company.

Before us, now, lay the Windward Passage, and beyond were the open waters of the Caribbean. Gone were the cays and sheltered anchorages of the Bahamas; gone were the short stretches of daylight runs. It was about 250 miles to Port Antonio, Jamaica, and we were looking for big seas and heavy winds along the way. We left Inagua in the evening in a light, pleasant breeze that gave no indication of the usual viciousness of the Windward Passage. The next day at noon we lay becalmed in the middle of the passage, with the mountains of Cuba towering overhead on the one hand, and the Haitian ridge on the other; it was hard to realize that these peaks were 70 or 80 miles apart.

But the trade wind was not to be held back very long. Early in the afternoon it began to breeze up and pretty soon we were tearing along under full sail, laying our course for Jamaica. By night it was getting to be too much for us and we took in the jib; a little later we lowered the staysail, and only laziness held us back from reefing the mainsail. Two hours on and two hours off, *Postscript* burying herself in foam, with first one of us at the tiller and then the other, each ignoring the poor boat's cries for shortened canvas. Boom under water, then high in the air, a roaring wake and hissing waves astern, and occasionally a wild bit of steering and a terrific slam-bang as a wave took charge and sent us careening through a violent jibe. No preventers set in that sea; let the mast

Postscript under tow of a Cuban gunboat, going to Bahia Honda, under arrest.

The constable and customs agent, perched on the gallows frame, kept asking for American cigarettes.

and rigging do their best. We thanked fortune for our heavy main sheet — the sheet we were inclined to curse at softly in light airs. We were glad Bill had made our boom heavier than we intended; our ten-ounce mainsail was in its element, too. More and more wind all the time. It was a wild night and hard work at the tiller; we dared not let her come up into the wind for an instant, and we only hoped we would not have to lower away to reef down. Oh, we were learning how to sail her! A month before we would not have dared carry on; it would have been enough to look back at those following seas which towered over us. Even as it was, a big one occasionally seemed ready to topple over on top of us, and more than once we shuddered as we glanced astern.

All night we tore along and wondered how much current was in our favor; we kept going the next day and began to think that Jamaica might loom up before dusk. We logged our best distance for 24 hours, something over 150 miles, and once in a while made over six and a half knots. We remarked a little sheepishly that we were killing ourselves for the sake of half a knot, for under double-reefed main we would have made almost as good speed. *Postscript's* ultimate hull-speed had been reached, and the press of more canvas just buried her deeper.

We hove-to for the night under sea anchor alone, lest we run down on the Jamaican coast in the darkness, and in the morning we experimented with several combinations of riding sail in conjunction with the drogue. It seemed evident that for really rough weather we should have a sail further aft than the normal position of the trysail permitted, and we determined to rig up the storm jib for such use before continuing to Cuba.

Port Antonio was approached in the midst of rain squalls, and it was with some difficulty that we gained access to the landlocked harbor because of the heavy swells in the lightened breeze outside.

From Port Antonio we sailed along the north coast to Montego Bay where we enjoyed several days of warm hospitality and welcomed many visitors aboard the boat. Here, so far from home, *Postscript* seemed very tiny and insignificant, and while our cruise had come to seem the most natural thing in the world to us it was not hard to understand the inability of some of our visitors to see where the pleasure lay. Some day it will probably seem strange even to Pete and me that we enjoyed a whole winter in such a craft, and I imagine I shall regard *Postscript* much as I do the old high-chair in the attic, which always strikes me as being an amusing sort of thing in which to have spent so much time.

We left Montego Bay thinking that with the strong trade winds we would reach the Yucatan Channel in four days, but it was not until the eighth day that we rounded the western end of Cuba.

Light winds at night made progress slow, and indeed we usually slept from dusk to dawn; only on two occasions when a good sailing breeze held throughout the night did we keep going. As in most of *Postscript's* previous encounters with *favorable* currents, the velocity of the westward flowing current toward Yucatan seemed *nil*, and our log registered practically every mile of the actual distance. When we figured we were past the Isle of Pines we sailed northward to check our longitude, and after picking up land and getting a noon sight we found that we still had 175 miles to go instead of 60. This was the trial-and-error method of navigation, this running down the latitude in the absence of a chronometer, but it was in line with our ideas of how to take life easy offshore. Few compass courses for us; just "to the northward," or "somewhere west"; that was exact enough for us. And what did it matter if we were out two days or ten? We were out for a winter's sail, not to get somewhere quickly.

After several days of slow struggling against head winds, during which time we seriously considered abandoning Havana and going far out into the Gulf in order to make our way eastward against the trade winds to the Florida Straits, we began our strange shore career. And *Postscript* chafed for eight days in custody of the customs authorities, while her crew called upon the State Department in Washington, the Embassy, the Consulate, and Judicial Police in Havana, and all the gods and devils known to the Spanish tongue to obtain permission to

A small native cargo schooner at Esperanza.

continue unmolested on their humble way. We even went to jail for 24 hours. We indirectly caused a naturalist from the Museum of Natural History in New York to abandon his expedition; we brought a Cuban gunboat into special service; we clogged the telegraph system with official messages, and brought American Railway Express detectives all the way from Miami. Altogether we cost the Cuban Government, and other august bodies, the sum of nearly two thousand dollars. And all this despite the fact that our papers were all in order, and that we did not violate even a technicality.

This is the way it came about: one Sunday night we felt our way into the harbor of Esperanza, 80 miles west of Havana, and dropped anchor after a particularly hard day's sail. We were running short of food, and had decided to take a day's rest and replenish our larder at the same time. We had not landed in Cuba since leaving Jamaica two weeks before, and our bill of health asserted that Havana was our destination; but under stress of weather, or with shortage of food or similar provocation, a boat can, of course, enter any port whatever. Nevertheless, we suspected there might be strict regulations, so we moved cautiously.

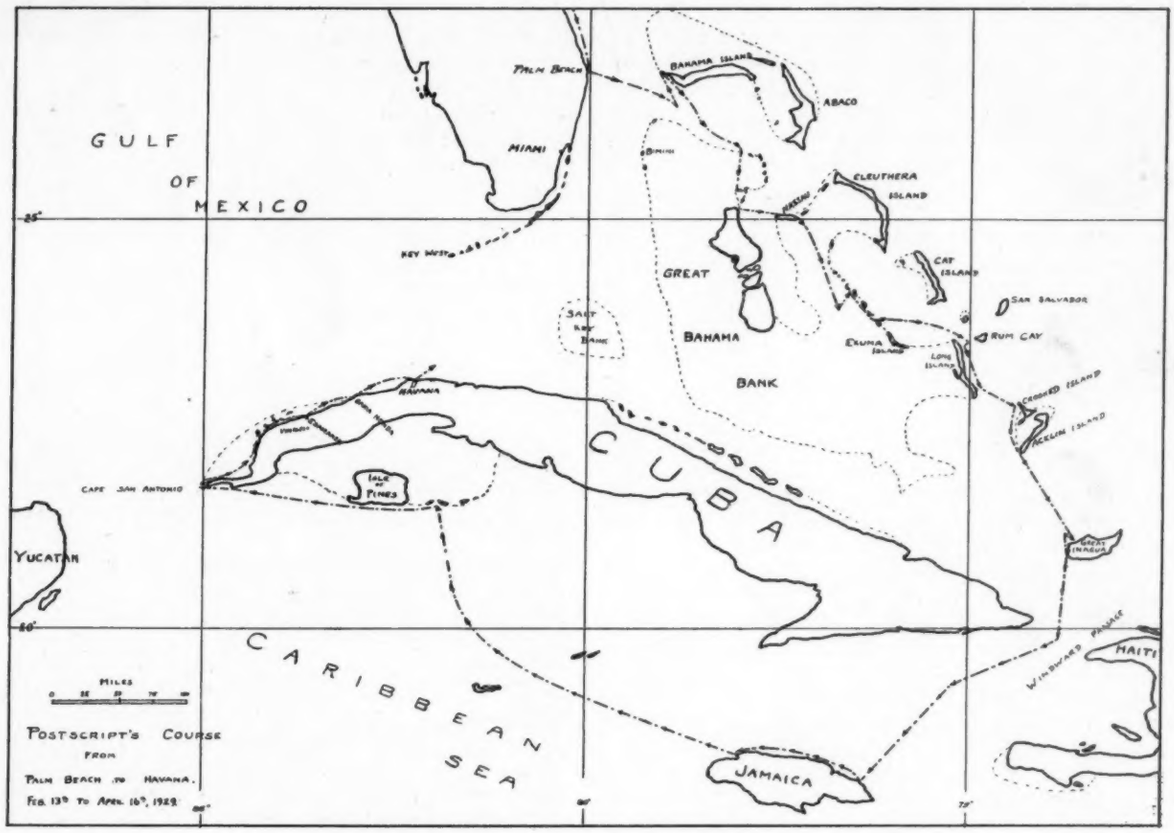
We showed our various papers to the Customs Agent and to the captain of a little navy gunboat lying at the dock, and received permission to go ashore. A private physician tried to collect $10 from us, after we had been ashore several hours, on the pretext of issuing us a landing certificate, but we disillusioned him and were not bothered again from that direction. Our English money, which we had been using in Jamaica, was not acceptable to the merchants of Esperanza, so we boarded the omnibus for the inland city of Pinar del Rio and after four hours of a rough and dusty ride we made an exchange at the Royal Bank of Canada, only to find that we had missed the last bus back to Esperanza.

The following morning, with many boxes of provisions on the back seat, we were returning to our boat when the bus came to a stop in front of the Police Station in the little village of Vinales. All the street loungers gathered about us and three policemen invited us, in Spanish, to get off the bus. We explained, with suitable gestures, that we had still 15 miles to go. But it was no use; they were armed with revolvers and we had only a Spanish dictionary. We presently found ourselves in the station-house, our food was taken from the bus, and my features were being studiously compared with a photograph of a missing bank clerk who was wanted by the Miami police! Then an hour or two of foolishness while imaginary scars and marks of identification, and finally a sample of my handwriting, seemed to clinch the case against me and I was firmly believed to be the missing thief.

We were permitted lunch at the expense of a fellow-American, Mr. Kirk Meadowcroft of the Museum of Natural History, but as soon as the check was paid we were roughly seized and thrown into a barred cell. No formal charge of any kind was made, and Pete never did find out why he was arrested, except that presumably he was in bad company.

The afternoon dragged by, and upon request we were furnished something to sleep on — two slatted wooden benches. Our demands for permission to communicate with the outside world were coldly turned down, but fortunately Mr. Meadowcroft, after being himself thrown out of the police station when he entered an objection in our behalf, succeeded in despatching some cables and telegrams to the Embassy, the State Department, and the Havana police. Again and again we explained that we had every means of identification aboard our boat, but to all this the police paid no attention; they were determined

(*Continued on page 98*)



Track chart of *Postscript's* course around Cuba.

The Adventures of Howard Blackburn

Part II—My First Single-Handed Transatlantic Passage in the "Great Western"

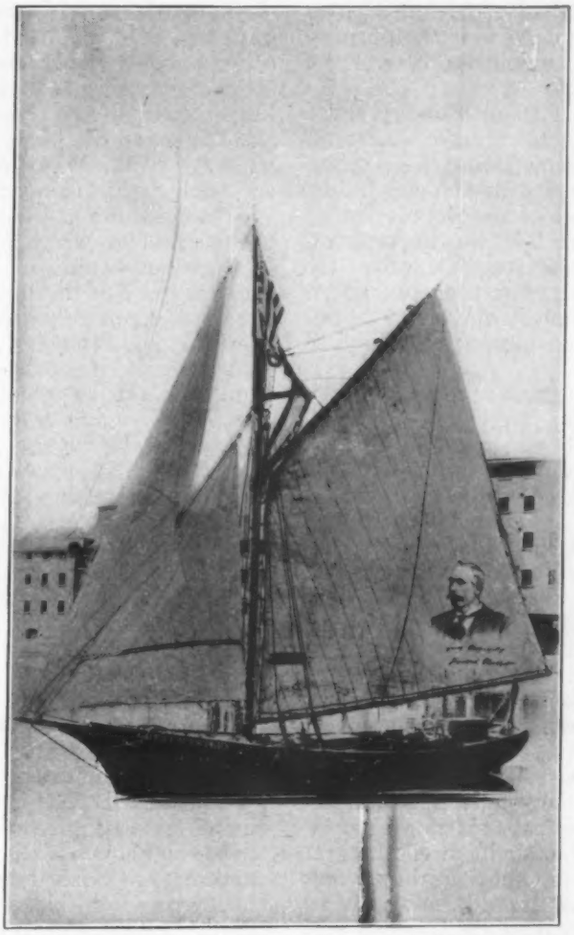
FOR more than a dozen years after my experience adrift on Burgeo Bank my life was uneventful. Under normal conditions it is probable that nothing would have occurred to rouse in me the spirit of adventure which had so long been dormant, and the daily routine of my life would doubtless have continued undisturbed for some years at least. But when the discovery of rich gold fields in the Klondike region was announced, and the press was filled with accounts of fabulous wealth to be obtained in a few months, my ambition was fired. My desire to engage in this new enterprise was the greater because danger and hardship must be expected on the frozen tundra, or bleak hills bordering the Yukon and its tributaries.

My first move was to organize a party of twenty men, each man sharing equally the expenses of the enterprise. With the money thus raised I bought the fishing schooner *Hattie I. Phillips*, of Boston. She was 96.46 tons, net tonnage, built in 1885, and we considered her suitable to make the trip "around the Horn" and to Northern Alaska. We took her to Gloucester, gave her a thorough overhauling and fitted her out in first-class shape for the voyage to San Francisco.

The outfitting completed, we purchased a cargo of coal, at $3.75 per ton, expecting to realize enough profit on this to assist in meeting the expenses of the expedition. We sailed for San Francisco October 18th, 1897. We had been at sea only a brief time, and had just entered the Gulf Stream, when we ran into a hurricane. The wind blew with terrific violence, the sea was very high, and more or less irregular and dangerous. The hurricane continued for 36 hours, but, aside from having our jib blown into ribbons, we suffered no loss or damage, although we had occasion to bless our stars that we had a good sea boat beneath us, and that spars, rigging and sails were all in excellent condition.

I shall not enter into the details of our voyage. After a rough and tumble experience, including a beat through the Strait of Magellan, much of which might prove interesting if time and space permitted, we arrived in San Francisco on Washington's birthday, 1898, after a passage of 127 days.

Here we sold our cargo of coal for $9.50 per ton, which left us a good margin of profit with which to refit. After considerable delay, during which we had arranged to sell the schooner after her arrival at St. Michaels, Alaska, I had the misfortune to injure my knee so badly that all idea of gold hunting in the Klondike had to be abandoned. In consequence, I sold my interest to a San Francisco man. Owing to lack of complete agreement several of the party withdrew at the same time. Those who remained with the vessel went on to Northern Alaska, as originally planned. I returned home in June, but was suffering severely with my injured knee — to such an extent that I was compelled to get about on crutches for fully eight months.



The 30-foot sloop *Great Western*, in which Howard Blackburn made his first crossing of the Atlantic alone. She sailed from Gloucester, Mass., June 18, 1899, and arrived at Gloucester, England, August 18th. The time of the passage was 61 days.

The voyage around the Horn in the *Hattie I. Phillips* awakened in me my love of the sea. I soon determined to build a boat in which I could cross the Atlantic alone and visit Gloucester, in Old England. I had no desire to emulate the dory trips across the Atlantic, so far as a boat was concerned, and decided upon a different type of craft. The boat I had built was a clipper sloop, which was named the *Great Western*. In type, she closely resembled the fishing sloops which then sailed from Gloucester. She was 30 feet long over all, 8 feet 6 inches extreme beam, and 4 feet 4 inches deep; tonnage, 4.77 tons. She had a graceful sheer and was decked over, with the exception of a cockpit in which I could sit to steer and trim sails. She steered with a wheel, the wheel-box being built upon the deck abaft the cockpit. For a boat of her size she had a roomy cabin, entered through a companionway at the forward end of the cockpit. In addition to other equipment, I carried a small oil stove for cooking, which I found served the purpose admirably.

The sail plan included a rather low, broadheaded mainsail, with two reef bands; a jib fitted with a bonnet; jib-topsail, and gaff-topsail. The two latter sails were used only in light winds, and the gaff-topsail was set but seldom, since it was not a convenient sail to manage on a single-handed boat. The ballast consisted of pig iron, stowed low inside.

During the days and weeks of spring, I watched my boat grow into form. Then came busy days of finishing up, and of putting on board the various items of equipment. After water tanks had been looked after, canned goods and other food stores had been put on board, and innu-

merable other details had been attended to, I finally stowed away carefully the chronometer, sextant and taffrail log. For I realized how much depended upon the proper care of these navigational instruments, although it may be said here that, while crossing the ocean, it was customary for me to tow the log not more than an hour, now and then, to determine the speed of the boat, and thus furnish a basis for keeping dead reckoning of her progress.

My provisions for the voyage consisted chiefly of canned meats, salmon, lobsters, beans, peas, etc., which required little cooking. The bread, tea, sugar and butter were stowed in lockers built for the purpose, and fifty gallons of fresh water were carried in a galvanized iron tank in the bottom of the boat, thus serving the purpose of ballast. My bunk was well forward in the bow of the boat. Such was the equipment.

I sailed from Gloucester at 2 P.M. on Sunday, June 18th, 1899, my destination being Gloucester, England. The wharves were lined with people, who cheered me heartily as I worked out of the harbor by the pier heads. It was estimated that nearly half of the population of Gloucester witnessed my departure. This was the more remarkable because Gloucester is far from excitable, for after her contests with the sea for more than two and a half centuries, her citizens are less easily moved to demonstration than those of towns unaccustomed to the ways of the sea.

The harbor was alive with small craft under sail, which reached out and in by the yacht-like fishing schooners that lay at anchor. This moving flotilla was made up, for the most part, of boats of the East Gloucester Yacht Club. My brother yachtsmen were doing me the honor of escorting me beyond Eastern Point, and they did not shout their farewells until I was well out in the open Atlantic. The twin lighthouses on Thatcher's Island were broad off my port bow as I headed away to the eastward on a course to clear Cape Sable, Nova Scotia, more than 200 miles away. Then, after many demonstrations of good will, they turned homeward again while I kept on my way alone, like Captain Slocum, in his famous voyage around the world, with "no dorg nor no cat" nor any other living thing on board for company.

The wind, light when I sailed, soon fell away to nearly a flat calm, so that my boat scarcely moved, but rolled lazily in the heave of the sea, her sails slatting monotonously as she rose and fell on the slight swell that ran across the bay, with a long easy motion that would scarcely have been noticeable had there been any wind. Aside from the slat of a sail now and then, it was very quiet, and for some hours nothing disturbed the stillness of this first night at sea except the occasional twitter of a Mother Carey's chicken, as it flew by. But I could not sleep; the land was too near for that, for if a breeze should spring up while I slept, my boat might end her voyage on the rocks of Cape Ann before it was fairly begun.

About two o'clock next morning the schooner *Judique*, of Gloucester, bound home from a fishing cruise, spoke me, and was informed of my sloop's name and her destination. Not long after this I ran into a heavy bank of fog and for all the first part of the voyage, fully twenty days or more, light westerly winds and dense fog prevailed. This part of the cruise was exceedingly monotonous.

The day after sailing, and just about the time the sloop stuck her bowsprit into the fog bank, my right foot became painful and soon began to swell. It was not long befor the foot and leg, to above the knee, were badly swollen, the pain being very severe. It was impossible to get around at all except with the greatest difficulty, and the prevalence of moderate winds at this time was fortunate. Unquestionably, I had a touch of fever during the eight days the boat drifted along under the shortest sail, for it was impossible for me to set additional canvas. During all this time I took no food except malted milk, which proved very nourishing, but I drank water to such an extent that thereafter much care had to be exercised to conserve the supply.

I have frequently been asked how, without any fingers on my hands, I could handle sheets, halliards and sails. This is the way it was done: All halliards were rove through fair leaders fastened to the deck near the mast, then led to the cockpit. In swaying up the sails I would take a round turn of the halliards around my body, then fall back. When the sail was up I would stoop down until the halliards rested on the cockpit rail, then put my hand on it and hold it until I could get to the cleat with the other hand. I never had much trouble in taking in or setting the sails. In hauling in the main sheet I would keep a turn on the cleat, then sway on that part of the sheet between the block and the cleat and take in slack with my teeth. Many people are surprised that I have still such a grip in my hands.

Such remedies as I had on board were freely applied to the foot and leg, which gradually yielded to the treatment. The fever also subsided, and the limb resumed its natural proportions. But this disablement, coming at the outset of the voyage, not only delayed the passage but left me in a condition less fitted for the work that lay before me than when I sailed from home. However, nothing could be thought of but to push along, and as soon as the crew on the *Great Western* was well enough to go on duty the business of the voyage was resumed.

As a rule, I kept the boat sailing from 6 P.M. until noon next day. Then I would heave her to, for she was too quick on her helm to steer herself except when close-hauled. When the position after the last run had been marked on the chart, and dinner eaten, I would turn in and sleep until about 5 P.M., at which time I would go on deck for my watch for 18 or 20 hours. If it was not too rough I would cook my supper, and also enough for breakfast and dinner next day. Then, when supper was over, I would go on deck, fill the boat away and start her on her course again. There I would sit, hour after hour, as she ran along, noting the long summer afternoon gradually wane, and night come down upon the sea, intensifying the obscurity of the fog-soaked atmosphere, which shut me and my boat within the narrowest limits.

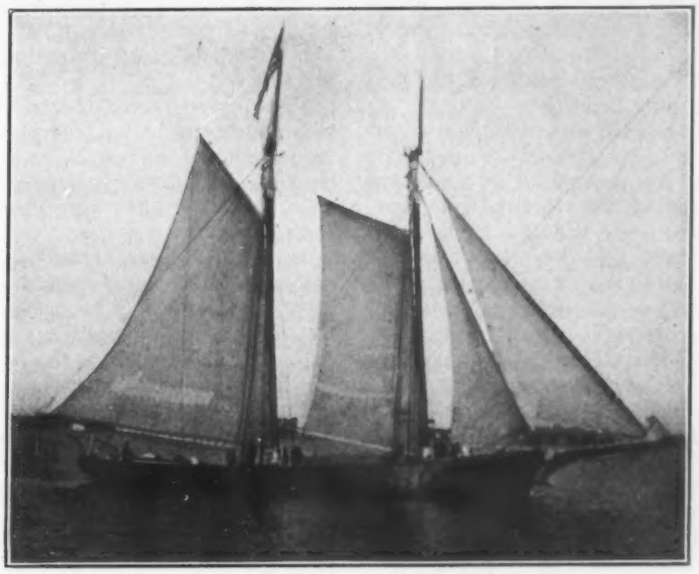
One night, when I had reached a position a short distance east of Sable Island, but considerably south of it, the fog was very thick — so dense that a vessel could have been seen only a few boat's lengths away. Not a breath of wind was stirring and only the slat of the canvas broke the stillness. The boat could make no headway, and I thought it wiser to turn in and get some sleep during this period of forced inaction, so that I would be ready when a breeze hit in, than to sit on deck all night holding on to a fog horn, or listening for approaching steamers that I was helpless to escape. I therefore lay down and went to sleep, trusting in my ability to waken if the wind breezed up so as to give the boat any motion.

Along about two o'clock in the morning I was sleeping as peacefully as only those can sleep who are untroubled with nerves or fears, when the screech of a steamer's whistle, seemingly almost on board, woke me with a start and to an instant realization of imminent danger. Grabbing a fog horn, which lay within easy reach, I made a rush for the deck, but struck my head against a beam with such force that I fell back on the floor of the cabin, more or less stunned, while the horn was so badly crushed under one of my knees that it was ruined; not a sound could I get out of it when I finally reached the deck. It was a moment of great excitement and peril. Although the accident to the horn made no difference as far as my safety

was concerned, due to the fact that the steamer was already passing when I got on deck, it was as close a call as anyone could wish. It is true I could not see the ship as she went rushing by with great speed, for the night was intensely black and the fog very thick, but she passed so near that the wave from her bow washed over my boat, and that was too close for comfort.

After that I lost my faith in the "small mark to run for" theory, and although a miss is as good as a mile, made it a rule to keep well to the southward of the steamer tracks during thick weather. Even under ordinary conditions there were sufficient difficulties attending an ocean voyage in so small a craft without making her a target for swift steamers passing daily.

After I got to the eastward of the Grand Banks of Newfoundland, and felt there was probably less danger of being run down than in that part of the ocean which had been crossed, I took life a little more easily, and slept through the short summer nights, running the boat from daylight until dark. This improved my condition materially, since it gave me a chance to rest when sleep naturally did me the most good, while it also enabled me to sail the boat to the greatest advantage, especialy in stormy weather, for I could carry a greater press of canvas and drive her ahead faster during daylight than at night. But sleep was denied if the wind was too heavy at night, for then a vigilant watch was necessary.



The schooner *Hattie I. Phillips* which Captain Blackburn sailed to San Francisco during the Alaska gold rush of 1897.

If, however, the weather was not too rough when night came on, the mainsail was taken in and furled and the storm trysail set in its place. With this sail and the jib, and the wheel lashed, the boat was left to care for herself while I slept. If the wind was scant, so that she could just lay her course, or even a point or two free, it was easy to trim her so that she would make considerable progress during the watch below. And as such winds prevailed during a considerable portion of the voyage after passing the banks, many a mile was gained while all hands slept. This was especially true of the last 23 days of the passage, during which time the wind varied from southeast to northeast. It was then that the crew of the *Great Western* would have been justified in imitating the Chinese by painting eyes on her bows so that she could see her way alone.

The weather to the eastward of the Banks was much more boisterous than during the first part of the passage. Indeed, there were times when even my desire for something "stirring" was more than gratified.

One morning, about four weeks after I had sailed from Gloucester, the weather became very boisterous. My little sloop behaved well, gallantly rising over the seas and plunging down their steep sides, but her motions were necessarily quick. It required both care and experience for one to move about on her deck and keep his footing. After daylight broke I went to take down the running lights. Owing to the conditions, the port light was lost overboard. After that a white light had to be used in place of the red one and possibly this may have been the cause of an interview on the high seas a short time thereafter.

The *Great Western* was about half way across the Atlantic and was jogging along under easy sail just before daylight one morning, with the wheelbox on the lookout, while all hands slept peacefully below, in the forepeak bunk. The weather had been clear when the crew left the deck, and no anxiety for the safety of the little ship disturbed the dreams of the watch below as the boat surged along through the sea, practically "on her own," as it were. Suddenly the shriek of a steamer's whistle close alongside broke the air, so loudly that I awoke with a jump. My first thought was that the boat had run into a bank of fog, and the steamer was blowing fog signals. So I grabbed the foghorn, which had been repaired, and, avoiding the former head-breaking experience, I rushed on deck. It was an agreeable surprise to find the weather was clear and fine, and a steamer lying close alongside and ready to proffer any assistance that might be required. An officer hailed me and asked if I needed assistance. I shouted back across the intervening sea, "No, I'm all right!" It was a very brief interview but it was characteristic of the sea and fully sufficed. Three blasts of the steam whistle came as a sailor's good-by from the ship; the churn of white water which the screw kicked up under her stern was seen, and sooner than I can write it she was off on her course across the ocean, while the incident of meeting with a single-handed boat in mid-ocean was probably entered in her log. It is doubtful if the recorder knew there was not a *whole* hand on board the diminutive yacht met that morning.

But this incident did not conclude my experiences with the running lights. Not long after this I encountered a rough, stormy night, for, as has already been told, the weather met with on the eastern side of the Atlantic was very nasty and disagreeable, not to say dangerous at times. The wind held to the eastward with a persistency that was remarkable for the season. It was a case of wind-jamming and "sawing blocks" seldom equalled for so long a period in that region of variable winds. The one compensation, as far as making a passage was concerned, was the fact that my sloop was well adapted to close-hauled work, and would not only steer herself but forge ahead on her course at considerable speed when it was necessary for me to sleep.

On the night in question, the boat was driving along to the eastward as best she could, through the rain and foam of the white-topped waves. When the time arrived to put up the running lights for the night, the green starboard light would not burn. All my efforts to get it to burn satisfactorily were unavailing, and so, with patience exhausted, I threw the lantern into the sea, and put up a white light in its stead. My boat was now carrying a white light in the rigging on each side instead of the conventional red and green lights required by the rules of the road. And this,

which at first seemed a misfortune, was undoubtedly the means of avoiding disaster to the *Great Western*. I am confident that otherwise she would have been run down and sunk a few nights later.

It was a stormy night, shortly after dark, and the rain fell in torrents, driving spitefully into the sails and falling in sheets on deck or into the cockpit. The two white lights had been hung in the rigging, and the boat was going along under easy sail, steering herself, while I was below trying to cook some supper — not an easy job in the cabin of such a small craft, plunging and pounding into a head sea. While I was absorbed in this occupation, and was for the moment more concerned about keeping a stew pan from taking a flying trip across the cabin than in any thought of danger, I suddenly heard the sound of escaping steam close at hand. Quickly dropping everything, I tumbled on deck in a hurry, and there saw a large steamer only a few yards distant, heading directly for my boat, her red and green running lights both shining brightly.

My first thought was that the ship was rushing straight for me and that the next instant she would crush my little boat like an egg shell and end my voyage for all time. But she was dead in the water, which was fortunate for me, for had she not stopped when she did the little sloop would have gone to the bottom, and doubtless I should have accompanied her. It is probable that when the watch on the steamer saw the two white lights under her bow he thought they were on a wreck; hence the ship was brought to a sudden stop. I went forward at once and stood near the lights, so that the people on the steamer could see me. No hail came from the big craft and I was not in a talkative mood. But as soon as my boat forged ahead across her bow, the churn of her screw was resumed, and she steamed off to the westward. Such evening callers are not always welcome, and I was not sorry when her huge hull was swallowed up in the misty darkness and my cooking could be resumed.

The week following this episode the weather was particularly nasty. The wind hung in the northeast with great steadiness, but with variable strength. Sometimes whole sail could be carried, but frequently they had to be reefed, and always the boat was close-hauled, pounding along against a head sea, or at best with the sea on her port bow and a point or two of sheet started.

During the latter part of the voyage, and especially while the bad weather prevailed, there was little opportunity for sumptuous feasting on board the *Great Western*. For a whole week on one occasion, no cooking was done, but the crew learned by experience that life or comfort are not always dependent upon a large variety of food, or upon all the accessories that go with a bountiful board. During this time the morning meal consisted, as a rule, of two or three tablespoonsful of oatmeal stirred in cold water. This usually sufficed until eight o'clock in the evening when, after the boat had been snugged down for the night, a supper of smoked fish or canned goods, taken cold and washed down with a drink of water, was taken before turning in.

Whenever the weather was fine the course was changed sufficiently to bring the boat into the track of the westerly-bound steamers. From one to four steamships were seen every day when the weather was clear, and this added interest to the passage, for there was a feeling of companionship in seeing those great steel fabrics plowing along through the ocean swells, even if they were distant. One day the steamship *Carlton*, of Newcastle, bound east, overtook me and ranged up alongside. An officer hailed, asking what boat it was, where from and where bound. I shouted back the name of the sloop, and told him I was 38 days out from Gloucester, Massachusetts, in the United States, and was bound for Gloucester, England. He then inquired if I needed any assistance. "No," I replied, but inquired what his longitude was, for I had not been able to take an observation for eight days, and was naturally anxious to know my position.

"I haven't worked up my sights yet," he cried, "but will let you know in a few minutes." This seemed impracticable to me, because the ship was going three miles to my one, and I knew she would be miles away before the necessary calculations could be made. But I had not properly estimated the generosity of this ship's skipper. For he soon put his wheel hard a-starboard, the stately ship swung around in a wide curve until she came up from astern and again sailed by my boat, while the information I sought was shouted down from the bridge. Then she swept swiftly by, leaving only a track of creamy foam behind, and soon a streak of black smoke on the distant horizon was all that indicated the presence of the vanishing ship.

I keenly regretted the trouble and delay I had caused this courteous sailor, regretted it the more perhaps because of the kindness he had shown me, and determined that I would not thereafter ask for the position of another ship, which resolve was closely adhered to for the remainder of the passage.

Immediately after this there were several days of northeast winds. On one of these days I witnessed the formation of a water spout at sea, which was most interesting. A heavy black cloud had passed over the boat, and while it was moving slowly, a long sharp point gradually extended from it toward the sea. At this moment the water around the sloop began to boil and jump in all directions. This did not last long, for in a few minutes one of the largest water spouts I have ever seen formed to leeward, but it was so far away that it caused me no anxiety for the safety of my boat.

A few days later the *Great Western* spoke with the steamship *Europe*, of Liverpool, and from that time on, vessels of many kinds and sailing various courses were seen daily. Meanwhile, the *Great Western* was steadily reaching in for the land, and a sharp lookout was kept. Finally, at 9:30 A.M. on August 16th, I made the Scilly Isles, after a passage of 59 days across the Atlantic. These islands lie off Land's End, the southwestern extremity of England, and from there I had to work up toward Bristol Channel, through which it was necessary to pass to reach my destination.

After making the land the *Great Western* was kept going steadily, under all the sail she could carry to advantage, working up towards Bristol Channel. At noon of the day after sighting the Scilly Islands, I spoke the steam tug *Thistle*, about 25 miles west of Lundy Isle, and at 8 P.M. of the same day entered Bristol Channel. Here conditions proved favorable, and after a fine run up the channel, I arrived at King's Roads and made the *Great Western* fast alongside a pilot boat at 5 P.M., August 18th, 61 days from home.

At my request the pilots took me on shore in their small boat to a little summer resort known as Portes Head. From there I sent a cablegram to Commodore McCurdy, of the East Gloucester Yacht Club, announcing my safe arrival in England. The news of my arrival spread rapidly, and notice of it appeared next morning in the British press.

My boat lay quietly at Portes Head until the afternoon of the day following my arrival, when the tide served right to go on to Sharpness dock. In the meantime I had secured the services of a local pilot to take me up the Severn River, and at 2 P.M. we got under way.

It was a beautiful summer afternoon, and as the *Great Western* sailed up the Severn, with all her canvas spread

(*Continued on page 112*)

Under the Lee of the Longboat

by Cap Stan

THE sympathy of all real sailors will be extended to Captain Dingle on the loss of his schooner *Gauntlet*, through no fault of his, as a result of a West Indian hurricane. The loss of a boat, to the average yachtsman, is usually just one of those things, and he soon recovers from the shock. But to the Captain, the loss of *Gauntlet* was a catastrophe. She was his home, his friend, his companion — the two were almost human in their relationship, so well did they know each other and trust each other. May the Captain soon tread the deck of another staunch ship — one fully as deserving as *Gauntlet*.

I just had a letter from Dingle, regarding the handling of small craft upon the approach of a hurricane. There isn't room to print it all here, so I've shipped it on to the Skipper, and you'll undoubtedly find it elsewhere in this issue. Suffice to say that so far as I'm concerned, the Captain wins the argument.

* * *

Some six weeks before the day scheduled for the start of the Gibson Island Race the committee reported that they had thirty definite entries. Which makes it look quite possible for the record of 26 starters to be broken. One interesting angle of the race is the fact that four or more boats of the regular racing classes — N. Y. Thirties and Ten-Metres — will race in a class of their own, and their performances compared with those of the heavy cruising craft. If conditions are similar to those encountered in the previous race to Gibson Island, the racers are due to get the surprise of their lives. But if normal conditions are met with — a fair proportion of windward work — they are pretty sure to lead the fleet of huskier hookers by quite a margin.

Incidentally, last summer some of the owners of the One-Design Eight-Metre boats were doing a lot of talking about what fine cruising boats their craft were. Here is a fine chance to show the world. Will they? I wonder.

* * *

No more ideal conditions for a long distance power boat race could possibly be encountered than obtained in the recent Albany-New York Outboard Marathon, in which the winner averaged better than 36 miles an hour — an astonishing speed. Yet, despite practically perfect conditions, half of the starters fell by the wayside. This is no knock against the outboards. It simply suggests the fact that many of the boats used were unfit for the job, and that it is hardly reasonable to expect the marvelous little motors to hit it up to 5000 r.p.m. for over three hours at a clip. That many of the motors did so splendidly is pretty good proof that the modern outboard motor is one of the mechanical wonders of the age.

* * *

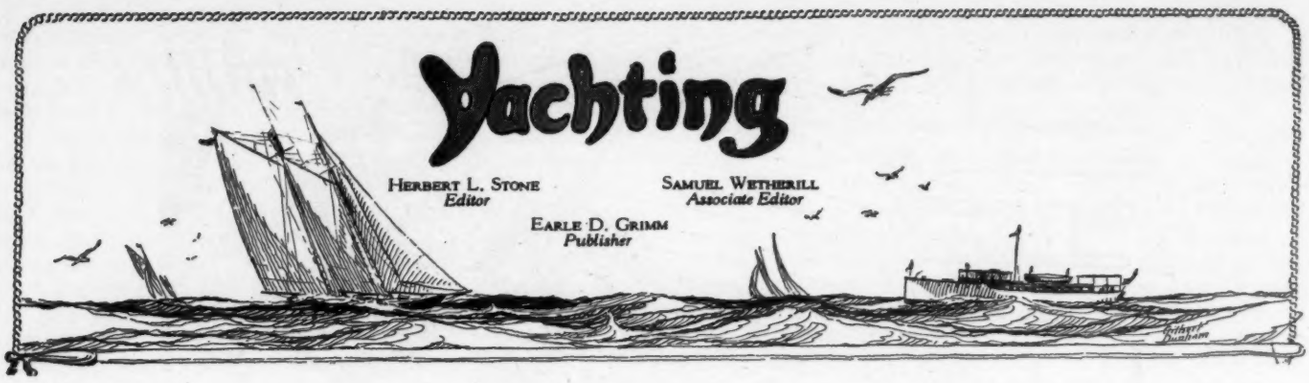
Since my appeal for information regarding short wave radio receivers I have received a number of informative letters, telling where and how to get such contraptions. The only rub is — Will they give good service on board a small yacht? On shore, maybe, but on a yacht, where dampness gets in its dirty work in a remarkably short time, it is different. In the meantime, the Skipper put over a fast one by reproducing the layout of the receiver used on *Seven Bells*, which is a proven article, compact, simple, cheap, and easy to build. Ben Brewster states that any radio mechanic can put one together quite easily. One or more will be used in the Gibson Island Race, and I hope to be playing with one myself before long.

* * *

Linton Rigg and Alf Loomis have convinced me that I caused a lot of uncalled-for grief when I intimated that the design of *Hotspur* was a jumbled up affair, drawn, re-drawn, altered and played with by numerous people. They both assure me that although Nedwidek did the actual finished drawings, and the detail work, the design is really a child of Rigg's brain, and that any changes or alterations which were made, at any time, were made at Rigg's suggestion, and no other's. It really never occurred to me that my remarks, which were meant to be humorous, and were based on hearsay and belief, would cause any heartburns in any direction, and I am only too glad of the opportunity of straightening matters out, and apologizing for having tread on anyone's toes. May *Hotspur* go out and vindicate her designer.

* * *

After many false rumors during the past few years, which were undenied by Sir Thomas Lipton, a challenge has been received by the New York Yacht Club from the Irish baronet for a series of races for the *America's* Cup in 1930. A special committee will confer on the matter, and before very long we shall know whether or not a fifth *Shamrock* will cross the Western Ocean and try once more to regain the coveted trophy.



Editorial

Another Challenge for the America's Cup

AFTER many rumors and false alarms of a challenge for that historic bit of silverware, the America's Cup, on the defense of which so much effort and money have been expended in the last 78 years, an official request for a race in 1930, on behalf of Sir Thomas J. Lipton, Bart., was received by the New York Yacht Club from the Royal Ulster Yacht Club. This challenge, the first in ten years, complied with the formal requirements of the Deed of Gift, naming *Shamrock V* as the challenging yacht; length 77 feet water line, cutter rig. It also contained the following: "It is understood that the racing rules and restrictions as to construction and measurements of the New York Yacht Club, as the same now exist, would govern the races under this challenge."

At a general meeting of the New York Yacht Club, held May 16th, the challenge was referred to a special committee, with power on behalf of the Club to take such action as it shall deem proper, and in the event of acceptance, then to arrange the terms thereof with the challenging club as to dates, courses, trial races, etc. This action follows the precedent set in former challenges for the cup. And while the challenge was not formally accepted at this general meeting, it seems probable that no difficulty will be encountered in arranging terms "by mutual consent," and that 1930 will see a race for the piece of silver known as the Hundred Guinea Cup, won by the schooner *America* in a race around the Isle of Wight in 1851.

This is Sir Thomas Lipton's fifth challenge for this trophy. The first three matches were sailed in 1899, 1901 and 1903. Then, after a space of 17 years, his *Shamrock IV* and *Resolute* met off Sandy Hook in 1920, when the latter won after the closest series of them all, by three races to two for the challenger.

In the ten years since the last challenge several changes in the situation have taken place which would seem to favor a challenge at this time. Chief of these is the adoption by the New York Yacht Club of Lloyd's scantling rules, which are the same as those used in Great Britain. This means that both yachts would be built to the same scantling requirements, and that the extremely light shells which formerly marked cup defense yachts will not now be permitted. Instead, we shall probably see wholesome construction, in comformity with the present yacht practice of that well-known classification society, Lloyd's. While the New York Yacht Club still uses the so-called Universal Rule, and the British, the International Rule, the two rules are yet not so far apart that a British designer will be at any great disadvantage in building a challenger to be measured under the former rule. All of which is more favorable to a foreign challenger than the conditions that have prevailed in some former races.

It is stated that Charles Nicholson, designer of *Shamrock IV*, has been entrusted with the design of the new challenger. He has had much experience in designing under the British rule and has turned out some exceptional 23-metre and 24-metre yachts, which are about the size of the yacht named in the challenge. The challenger will be built at the Camper & Nicholson plant, Gosport.

As to a possible defender, it is still too early to predict. It seems assured that at least two new yachts will be built, and very possibly more. "Nat" Herreshoff has virtually retired, and this leaves the choice of a designer, or designers, for the American boats still open. It is hoped that several will "get a crack" at a defender. The choice may be governed somewhat by the result in Class M this summer, the "M's" being the largest class of "single-stickers" we have at the present time. But that every effort will be made to produce a worthy defender goes without saying.

The *Resolute* and *Vanitie*, built for the last cup match, are still in the running, with jib-headed cutter rigs. Technically, either might be available. But as both were built under no scantling restrictions, it is doubtful if the Club would even consider them, although both have been strengthened considerably since they were built. At any rate, they would make excellent "trial horses," and would give some kind of a line on whether or not we had progressed in designing during the 16 years since they were built.

So, whatever happens, we have an interesting year ahead, and the prospect of a fine race if the challenge is accepted — as undoubtedly it will be.

The New 46-Raters

In view of the prospective race for the America's Cup, the racing in Class M will have added interest this summer. Of the four new yachts building for this class, two, Junius Morgan's Mower-designed *Windward* and Floyd Carlisle's Burgess-designed *Avatar*, have both been under sail, and are fine looking craft. The Pynchon boat, from the board of Francis Herreshoff, has not yet been out, nor has the other Burgess yacht for Carroll Alker and C. D. Wiman.

With these four new yachts, together with *Prestige*, *Valiant*, and the "50" *Barbara*, which Harry Maxwell is fitting with a new rig to bring her in the class, the best of racing is assured. It will be a "hot" class, with no quarter asked or given.

In the World of Yachting

CHARLES A. WELCH

THE racing career of Charles Alfred Welch, the new commodore of the Corinthian Yacht Club, has been comparatively brief, but unusually notable and successful, especially in the past three years during which he has won five national trophies for 20-raters, three of them challenge cups. In addition he has raced on both coasts and on both sides of the Atlantic.

At an early age we find him knocking about Hingham Bay in various types of small craft which his father used exclusively for cruising. Becoming somewhat eager for the racing game, he and his brother, E. Sohier Welch, crossed to the North Shore where they sailed an open 18-foot knockabout, "Hullooonnaa," in the handicap class. Then "Charley" Welch entered the Manchester 17-foot class with the "Beelzebub" and won championships at Manchester in two successive years.

In 1922 he took his Six-Metre "Undertaker" to Long Island Sound for the trial races in anticipation of the visit of the British team, and the next year went to England with Henry B. Plant as one of the crew of the "Ingomar" in the Six-Metre races at Cowes.

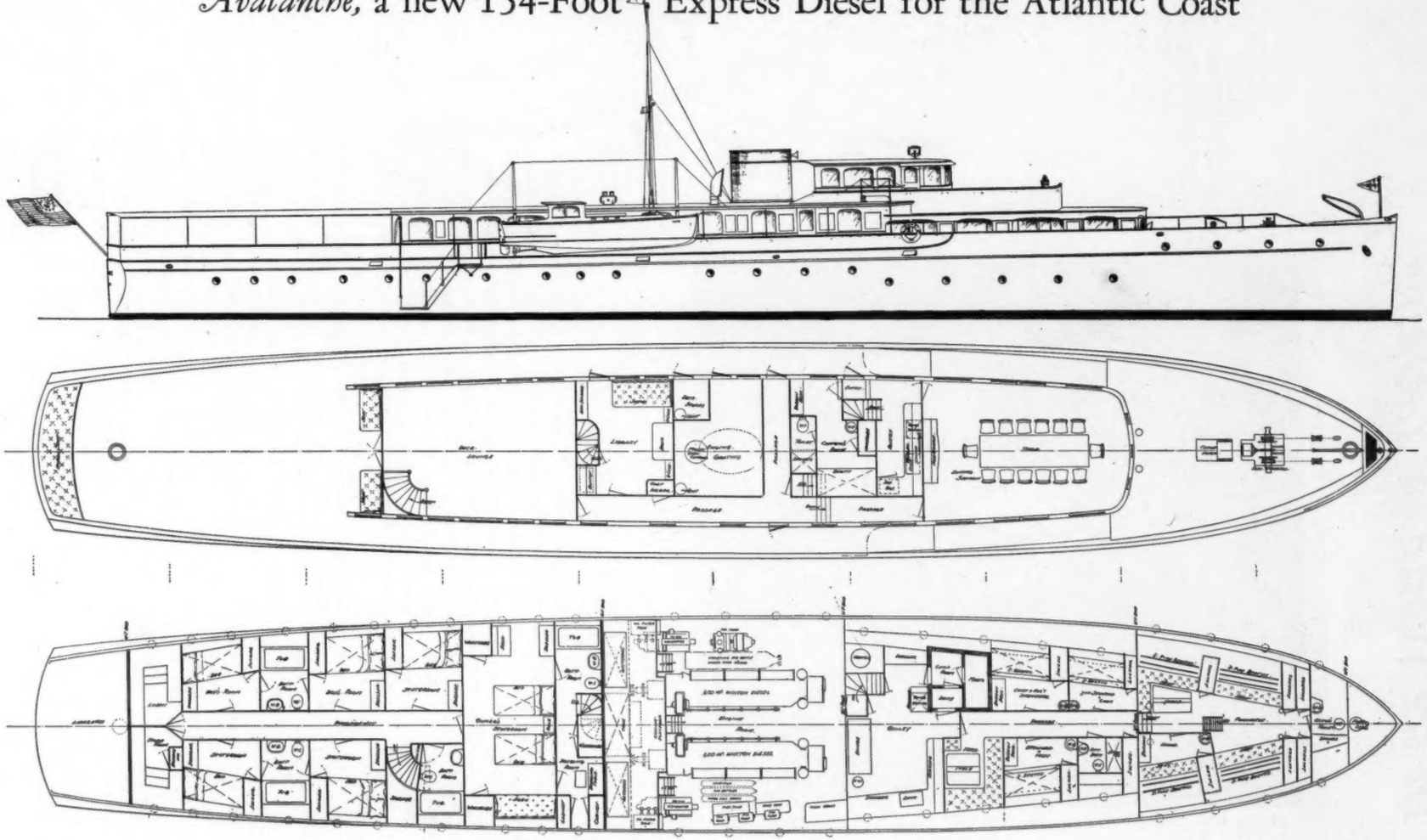
With the Class R knockabout "Yankee," a radical boat designed by L. Francis Herreshoff in 1925, he made an excellent showing in his first year with the 20-raters at Marblehead, and then going to Long Island Sound, captured both the Manhasset Bay and Greenwich Cups. The following year the "Yankee" won the New York Club Cup at Newport, and in 1927 Commodore Welch, with another Herreshoff production, the double-ender "Live Yankee," again won the races of the New York Yacht Club at Newport.

He took the "Live Yankee" to the Pacific Coast in March, 1928, and, with his wife and Dr. John H. Cunningham, brought back to the Corinthian Yacht Club the Don Lee Cup, a perpetual challenge trophy which the club was called upon to defend this spring at San Pedro.

This year Commodore Welch is building, from designs by Prof. George Owen, a 30-square metre knockabout as one of the team which will meet a German trio at Marblehead in July.

His advancement in the Corinthian Yacht Club has also been rapid; in 1927 he was elected rear commodore, and became vice commodore last year.

Avalanche, a new 154-Foot Express Diesel for the Atlantic Coast



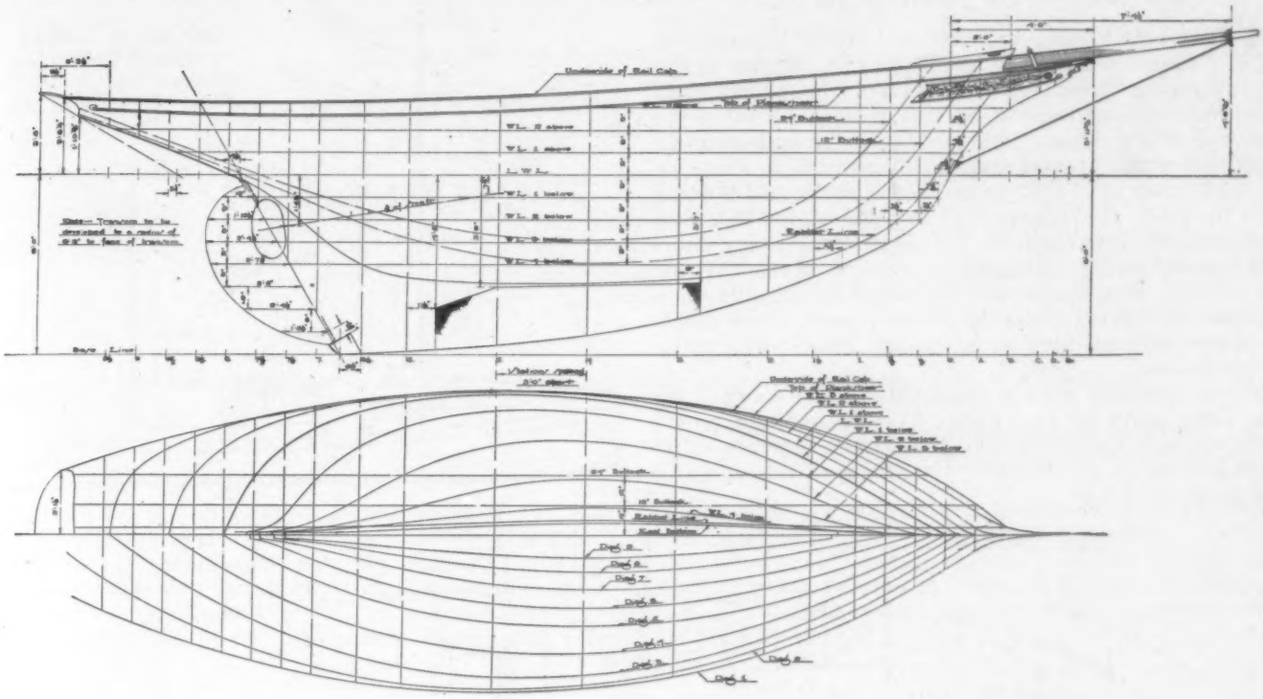
STRIKINGLY original in design and appearance and following rather the low appearing, rakish type usually associated with high speed yachts, the new Diesel-powered *Avalanche*, now building for Mr. Anson W. Hard, of New York, is typical of the modern trend for more style and speed with Diesel yachts, without sacrificing comfort, strength and seaworthy qualities.

The designers, Tams & King, Inc., have accomplished a great deal by the unusual treatment of the design as to the streamline appearance and the partially sunken deckhouse and sun deck. These features, plus the long after deck, comprise the original points of design. Mr. Albert W. Crouch, Vice President of Tams & King, refers to the design of this yacht in an article by him to be found elsewhere in this issue.

Dimensions of the new *Avalanche* are: l.o.a., 154′, 6″; l.w.l., 153′, 3″; beam, 24′; draft, 8′. She will be completely fitted with all modern developments, including Sperry steering equipment and compasses.

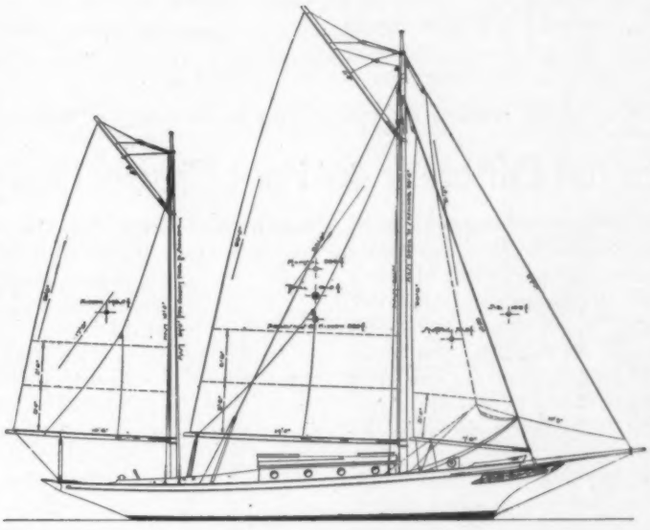
The machinery consists of a pair of six-cylinder, Model 115A Winton Diesel Air Injection type engines, developing 600 h.p. each, at 450 r.p.m.; two 20 k.w. Diesel electric generating sets; and the usual auxiliary pumps, air compressors, refrigerating plant, etc.

The boat is being built by the Consolidated Shipbuilding Corporation, of New York. It is expected that a speed of 18 miles per hour will be attained.

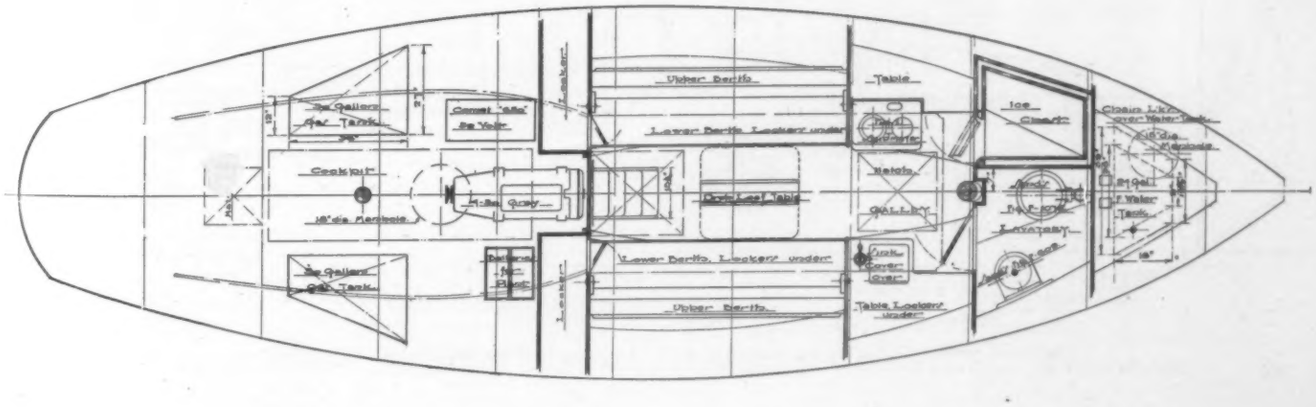


A 35-Foot Clipper-Bowed Auxiliary Cruising Ketch

DEPARTING widely from the usual type of yacht turned out these days, the 35-foot clipper-bowed cruising ketch whose design is reproduced on this page will be interesting to many yachtsman. She was designed for George McKee, of Port Alfred, Quebec, by Chester A. Nedwidek, of New York City, and is of the following dimensions: l.o.a. 35′ 1″; l.w.l. 24′; beam, 9′ 8″; draft, 6′; sail area, 615 sq. ft. in a gaff-headed ketch rig with double head rig. The sheer and ends are moderate, and the freeboard ample, while the sections and ballast indicate plenty of stability.



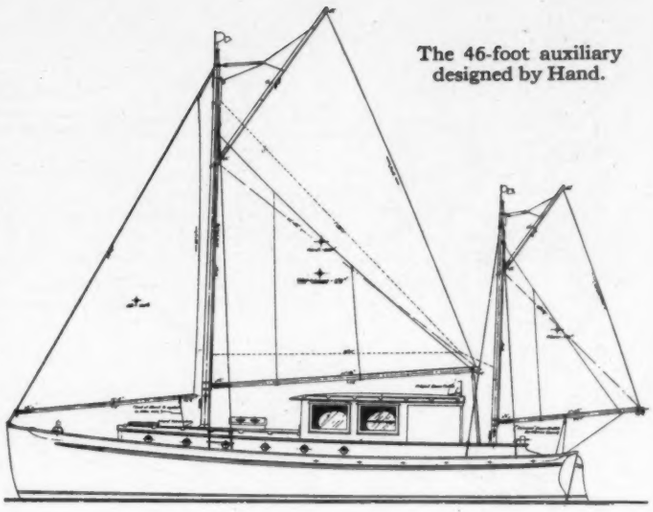
The cockpit is larger than on most cruising craft of the same size, and there is fine room on the forward deck for handling ground tackle, etc. There is but a single cabin, with upper and lower berths and fine locker space. A large galley, with a big ice box, is forward of the main cabin, and toilet and wash basin have been located just forward of the mainmast. A 30 h.p. 4-cylinder Gray motor is expected to give a 7-knot speed, and there is fuel tankage for 60 gallons of gasoline, and excellent stowage space fore and aft.



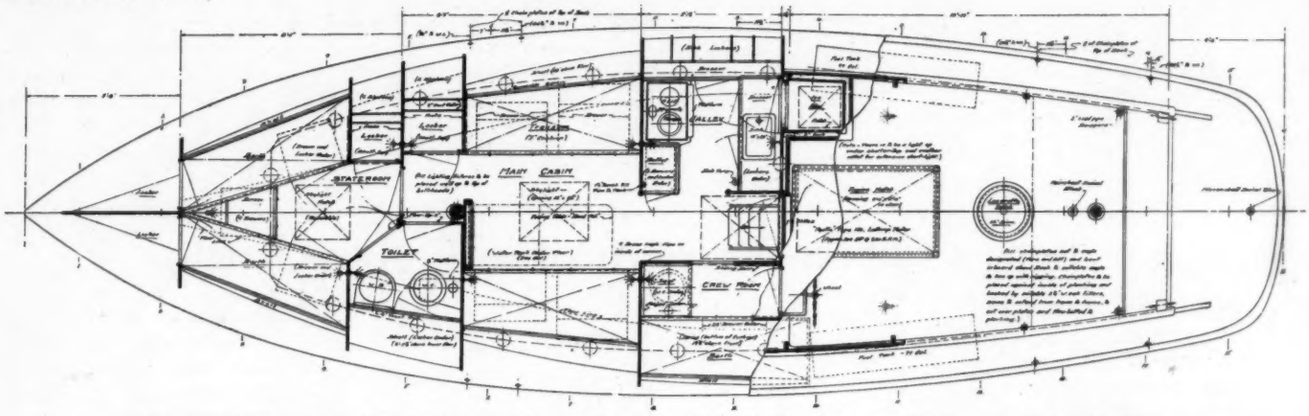
"50-50"—or Motor Sailer?

WHETHER you call her a "50-50" cruiser, or "motor sailer," the handsome craft shown in the accompanying design from the board of Wm. H. Hand, of New Bedford, is an interesting boat, a development of the design of *Water Witch*, built for the designer himself in 1927, and which proved remarkably successful. The new boat is 46′ over all, 13′ 6″ beam, and 5′ draft, and is being built by H. S. Parkhurst, of Onset, Mass., for Mr. Carl Beckman, of New Bedford. Her lines show many characteristics of sailing craft, and her designer states that she has a "deep, seagoing type of hull which will really sail, in addition to driving properly under power. These boats work to windward very decently, and handle well under all conditions."

She is arranged with a double stateroom forward for two, main cabin for two, galley to starboard, aft, crew's room opposite the galley, and toilet room between stateroom and cabin. A 6-cylinder Lathrop is installed, which will develop 75 h.p.



The 46-foot auxiliary designed by Hand.



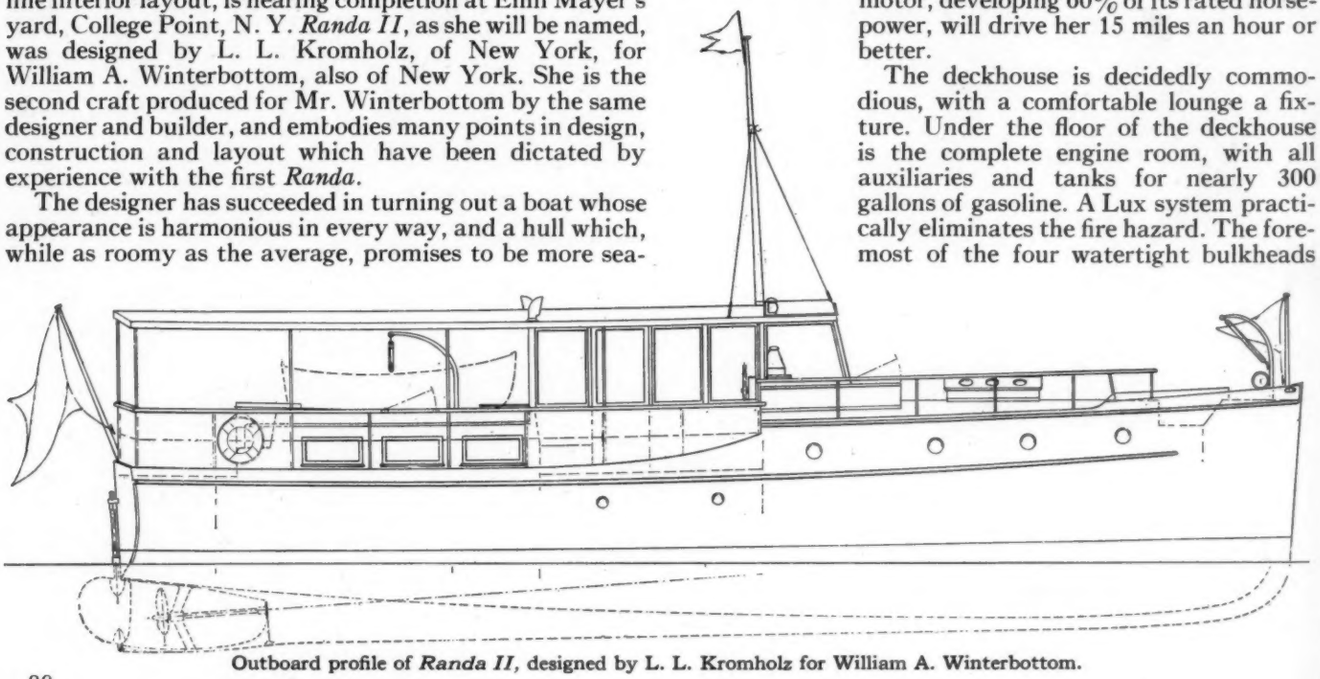
Accommodation plan of the 46-foot auxiliary designed by Wm. H. Hand for Carl Beckman, of New Bedford.

Randa II—A Somewhat Different 46-Foot Cruiser Designed by Kromholz

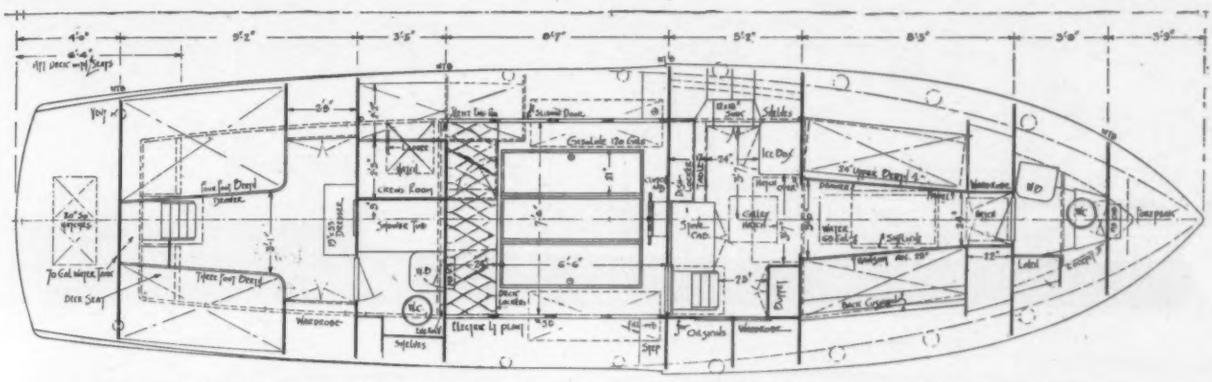
A DISTINCTLY handsome 46-foot power cruiser of excellent construction and finish, and an especially fine interior layout, is nearing completion at Emil Mayer's yard, College Point, N. Y. *Randa II*, as she will be named, was designed by L. L. Kromholz, of New York, for William A. Winterbottom, also of New York. She is the second craft produced for Mr. Winterbottom by the same designer and builder, and embodies many points in design, construction and layout which have been dictated by experience with the first *Randa*.

The designer has succeeded in turning out a boat whose appearance is harmonious in every way, and a hull which, while as roomy as the average, promises to be more seaworthy and faster than the average. The room to be found inside is reminiscent of a 50-footer. A 6-cylinder Buffalo motor, developing 60% of its rated horsepower, will drive her 15 miles an hour or better.

The deckhouse is decidedly commodious, with a comfortable lounge a fixture. Under the floor of the deckhouse is the complete engine room, with all auxiliaries and tanks for nearly 300 gallons of gasoline. A Lux system practically eliminates the fire hazard. The foremost of the four watertight bulkheads



Outboard profile of *Randa II*, designed by L. L. Kromholz for William A. Winterbottom.



The roomy interior of *Randa II*, the 46-foot power cruiser designed by Kromholz for W. A. Winterbottom.

has a large medicine cabinet attached to the door, making possible the inspection of the forepeak and anchor chains. The big lazarette has two 20-inch square hatches, with plenty of room for stowage of outboard motor, dunnage, suit cases and spare gear of all sorts.

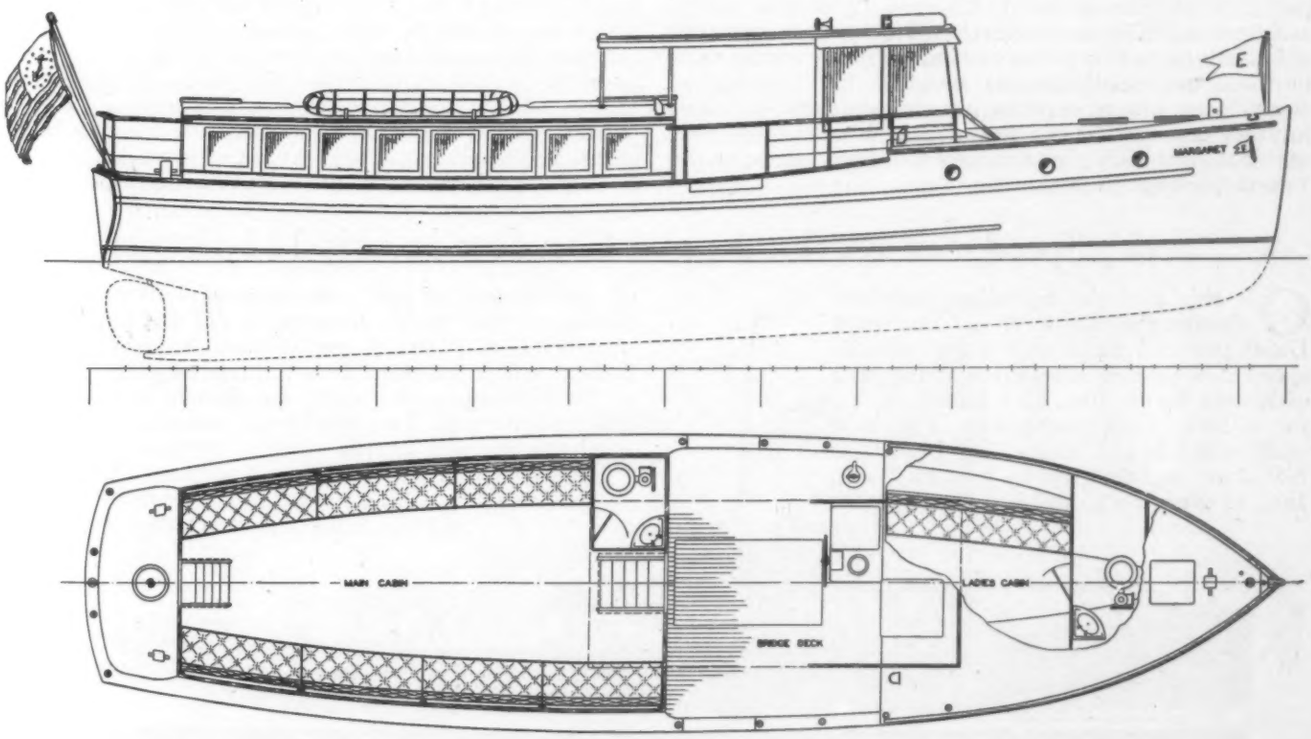
The forward cabin, with connecting toilet room, has full headroom, and accommodates four people on the usual upper and lower berths. Abaft this cabin is the 'thwartships galley, with large icebox, buffet, and other equipment, a hatch in the floor giving access to a large storage locker. A small cockpit is recessed over the toilet room forward.

The owner's stateroom aft contains two 3′ 3″ bedsteads, two large wardrobes and a bureau. A novelty in a cruiser of this length, but practical nevertheless, is the bathroom with its shower tub. The room for the paid hand is surprisingly adequate, with good berth, necessary plumbing, good ventilation, etc.

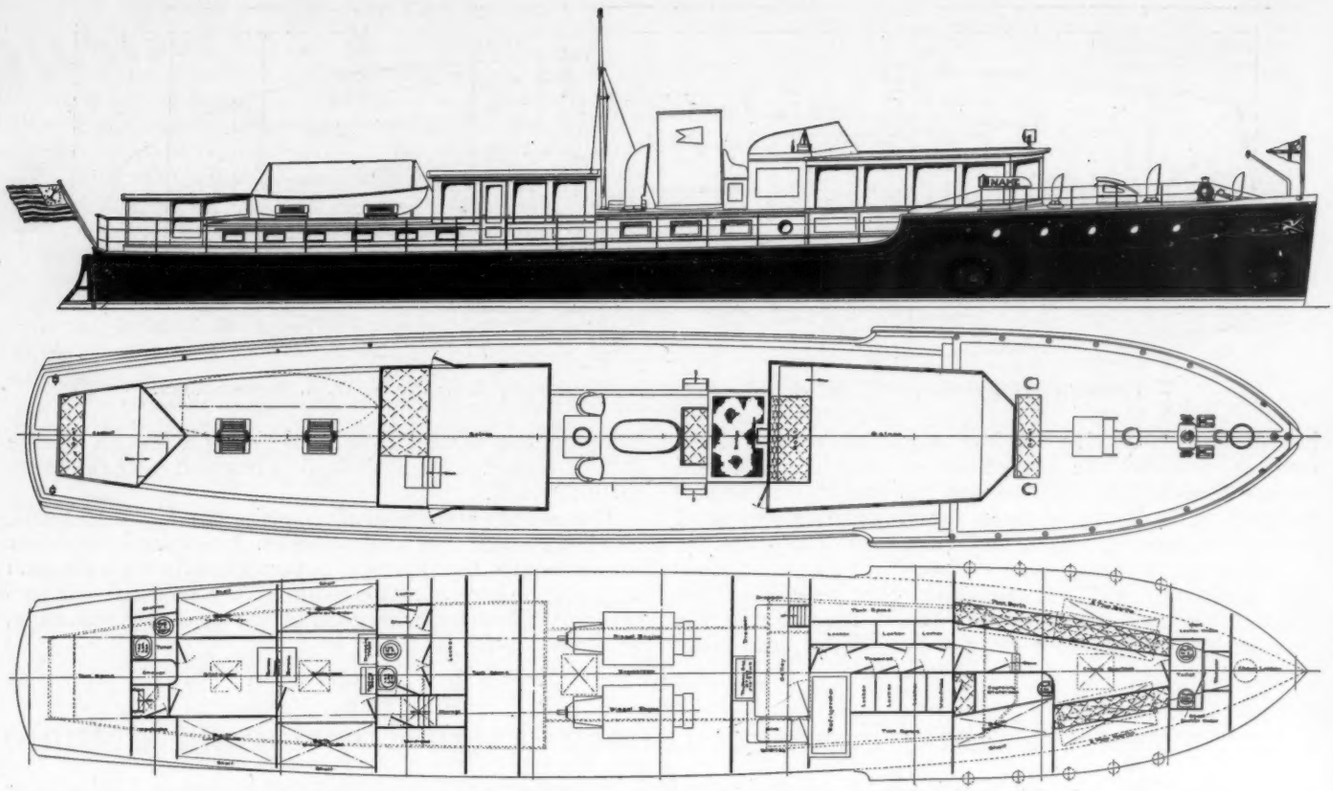
Margaret—A "Yachty" Passenger Launch Designed by Howard & Munro

PASSENGERS leaving New England ports for New York on vessels of the Eastern Steamship Co. need no longer fear the possibility of being delayed by fog, which has, in the past, caused passenger vessels to stop and anchor before approaching Hell Gate. For now, when fog descends, and the ship anchors near City Island, the handsome launch *Margaret* will dash out, ferry them quickly ashore, where a train will whisk them into Manhattan in jig time.

Margaret, which was recently completed by Lamb & O'Connell, of Squantum, Mass., and whose design is shown below, is from the board of Howard & Munro, of Boston. She is 50 feet long, and 12′ 6″ beam, and her 60 h.p. Standard Diesel motor assures the passengers of a quick and safe trip. She can easily carry 60 people, in addition to her crew of two. In construction and finish she resembles a yacht more than a commercial vessel. She will be chartered to private parties during the off season for fogs.



Plans of *Margaret*, designed by Howard & Munro for the Eastern Steamship Co. for use as a tender.



Profile, deck and cabin plans of the 85-foot Diesel-powered yacht designed by Thomas D. Bowes.

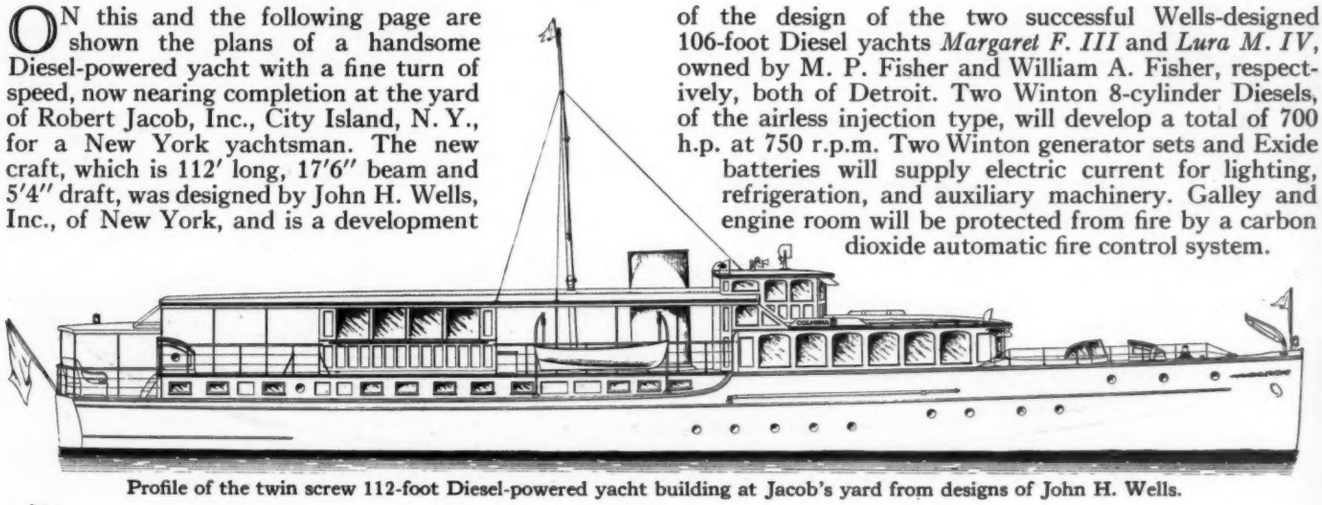
An 85-Foot Diesel Yacht with a 24-Mile Speed

FOR some time past there has been a growing demand for a Diesel-powered yacht which would be nearly as fast as the larger commuters and, at the same time, have fair cruising accommodations for a moderate-sized party. With this in mind, Thomas D. Bowes, naval architect of Philadelphia, developed an entirely new type of hull which, in exhaustive tests made in the towing tank in the Experimental Model Basin at the Washington Navy Yard, proved superior in speed, seaworthiness and internal capacity to the accepted form of express boat with flat after body, fine entrance and hard bilges, or the "destroyer-type" hulls.

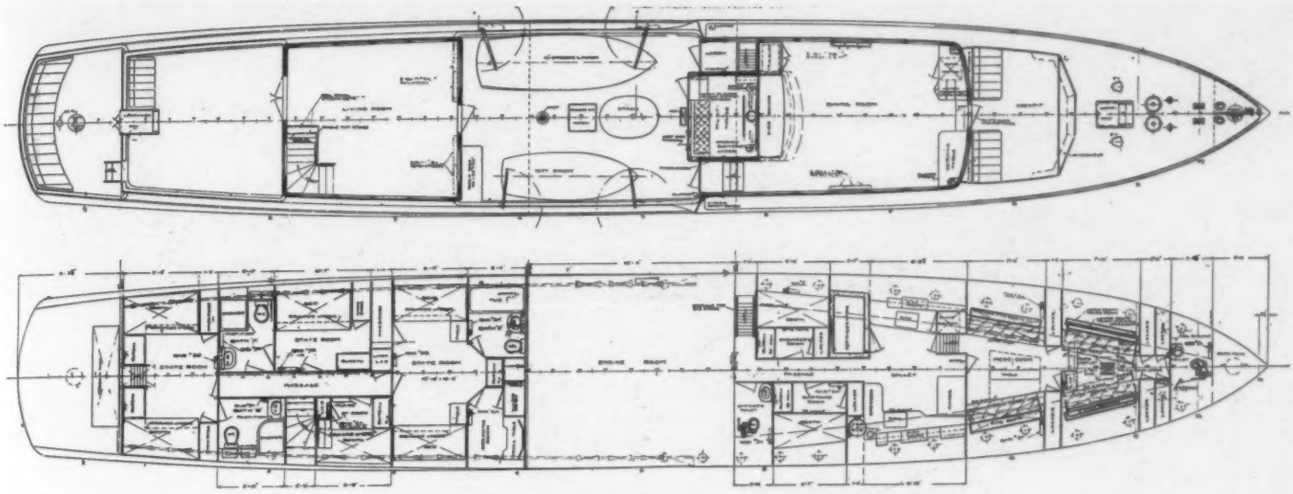
The new type of hull will be exemplified in *Sirene*, an 85-footer now being built for a Philadelphia yachtsman by the Salisbury Shipbuilding Co., Salisbury, Md. She has 14 feet beam and draws 3 feet 9 inches of water, the hull being of a round-bottom type with good deadrise the whole length, full forebody, and an after body with well rounded bilges and good deadrise. A speed of 24 miles an hour is indicated with the twin 12-cylinder Treiber Diesel motors, which are equipped with reverse gears and electric starters so that they may be handled from the bridge on occasion. The accommodations are excellent, and the construction, equipment and finish leave little to be desired.

Style, Speed, Seaworthiness and Comfort in this 112-Footer

ON this and the following page are shown the plans of a handsome Diesel-powered yacht with a fine turn of speed, now nearing completion at the yard of Robert Jacob, Inc., City Island, N. Y., for a New York yachtsman. The new craft, which is 112′ long, 17′6″ beam and 5′4″ draft, was designed by John H. Wells, Inc., of New York, and is a development of the design of the two successful Wells-designed 106-foot Diesel yachts *Margaret F. III* and *Lura M. IV*, owned by M. P. Fisher and William A. Fisher, respectively, both of Detroit. Two Winton 8-cylinder Diesels, of the airless injection type, will develop a total of 700 h.p. at 750 r.p.m. Two Winton generator sets and Exide batteries will supply electric current for lighting, refrigeration, and auxiliary machinery. Galley and engine room will be protected from fire by a carbon dioxide automatic fire control system.



Profile of the twin screw 112-foot Diesel-powered yacht building at Jacob's yard from designs of John H. Wells.



Deck and cabin plans of the Wells-designed 112-foot Diesel yacht.

In design, construction, finish and equipment this new craft will be second to none. The hull is double-planked and bronze-strapped. There are four watertight bulkheads, two of which are of steel. The outside finish is mahogany; inside is mahogany, walnut and enamels in attractive tints. Decorations were designed by the Raphael Studios, New York City.

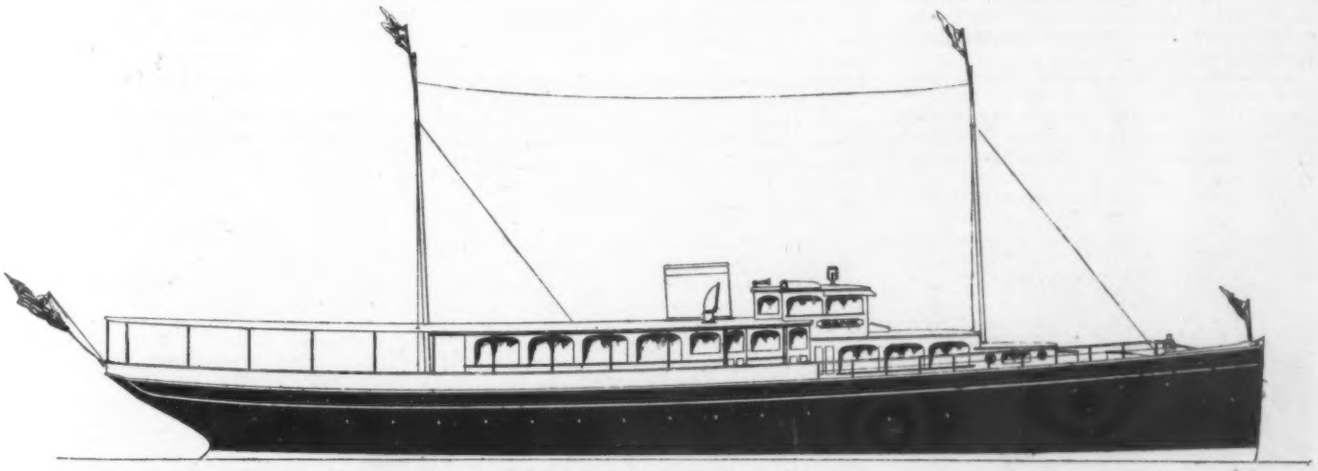
Included in the owner's quarters are two double staterooms, each with connecting bath, and two single staterooms with bath. Deckhouses and dining saloon are most commodious. A sunken deck forward, which can be covered in bad weather, adds greatly to the pleasure of cruising. The crew's quarters include two staterooms and forecastle, accommodating from 8 to 10 men.

A Fine 100-Foot Diesel Yacht Designed and Built by Luders

MR. DONALD PARSON, of Pinehurst, N. C., will be the owner of the handsome 100-foot Diesel yacht whose profile is shown below, the keel of which has just been laid at the yard of her designer and builder, the Luders Marine Construction Co., of Stamford, Conn. She has a beam of 18 feet 6 inches and draft of 6 feet, and when finished early in November, in time for a southern cruise, will replace *Spindrift*, the 72-footer which Mr. Parson has used the past two or three seasons in cruising between Maine and Florida, and will be used by her owner as a floating home for six months of the year.

The construction will be most sturdy, including sawn oak frames of natural crook and planking of double thickness. A substantial bulwark will be carried around the flush deck, affording a feeling of security and additional seaworthiness. The deckhouse will be of mahogany, decks of teak, and the interior decoration will be on the cottage style, with tinted rooms and broad expanses of smooth wall unbroken by small panels. Two Winton Diesel motors, of the solid injection type, of a total of 300 h.p., will give the boat a speed of better than 11 knots.

The interior arrangement plans are not yet completed, but will include two double staterooms and two singles in the owner's quarters, maid's room, two bathrooms and a toilet room. There will be a large social hall on deck at the end of the deckhouse, and inside communication through the deckhouse from the owner's quarters below and the dining room forward. Forward of the dining room is the pantry, galley and crew's quarters. Seven men will be the maximum crew carried.



Profile of the 100-foot Diesel yacht designed by the Luders Marine Construction Co. for Donald Parson.

A Dodge 26-foot sedan powered with the new Lycoming "Eight-in-Line" motor.

Of Interest to the Skipper

Dodge Runabouts

THE latest Dodge boat is a 26-footer with a sedan cabin with spring-filled cushions, windshield wiper, cigar lighter, etc. Steering wheel and instrument board suggest a luxurious automobile. The ventilating windshield is of safety plate glass, as are the side windows. Entrance to the cabin is aft, through a hatch with a slide. The after cockpit is roomy and comfortable. The new model is a step in the greatly enlarged production recently announced. Other developments include the erection of a new and larger plant in Eastern waters, the establishment of display salons and service stations in key centers, and the building of cruisers and commuters in a special custom division.

The power plant of the new boat is a Lycoming eight-in-line motor.

New Marine Engine

Announcement has been made by Lycoming that its new 115 h.p. straight-eight marine engine, model UD, will be distributed retail by Palmer Bros. through their branches in most of the principal cities of the country. Distribution will begin at once.

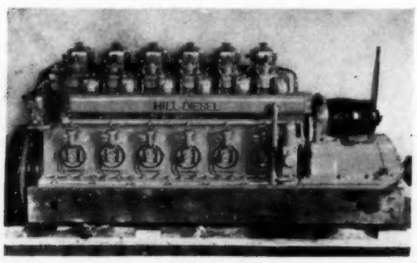
At 3,000 r.p.m. the new motor develops 115 h.p., and the counterbalanced crankshaft and heavily supported crankcase, coupled with the uniform torque, gives unusual smoothness.

Cylinders are of a special alloyed gray iron cast *en bloc*. Large water passages around the barrels and valves insure positive cooling. The detachable cylinder head is of the high turbulence type, permitting the use of high compression without detonation.

The upper half of the crankcase is of close grain gray iron, the lower half and part covering flywheel, clutch and reverse gear of special alloy cast aluminum. Pistons are of the invar strut type of unusual light weight. Connecting rods are of high carbon double treated steel, "I" beam section, drop forged. The crankshaft shaft is also drop forged, balanced statically and dynamically. Counterweights are forged integral with the crank cheeks. The shaft is drilled for oil pressure to all bearings, clutch and reverse mechanism. Six camshaft bearings and five crankshaft bearings of unusually large size are employed. Silcrome exhaust valves are fitted.

Timing gears are spiral, cut to insure quietness. The non-metallic idler gear drives the cam and water pump gear. Connecting rods, gear bearings and timing gears are lubricated by full pressure from the submerged oil pump. The pressure is automatically controlled. Either fresh or salt water may be used in the cooling system which is operated by a pump of large capacity. All parts of this pump are either of bronze or stainless steel. A multiple disc clutch and planetary gearing for reverse are used and both are unusually accessible.

Bore and stroke is 3¼" x 4½" with piston displacement of 298.6 cu. in. Dual carburetion and manifolding are used.



The latest model 6-cylinder Hill-Diesel motor, used as power in the 62-foot Sunbeam cruisers designed by Henry C. Grebe & Co.

The Modern Mariner special yacht type radio receiver.

For Offshore Work

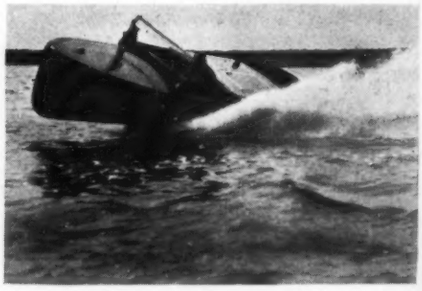
A knowledge of the correct time is essential for obtaining the longitude, unless the navigator wishes to struggle with the long calculations involved in a "lunar." Time signals are sent out twice daily from Arlington, and these may be read without knowing code. For those who can read code, weather and other reports are available. A neat and compact radio receiving set has been produced for the navigator of the small craft that will tune in to the long wave used by NAA. This is known as the Modern Mariner and occupies a space on only 7" by 14", and needs only a 20-foot aerial to receive the Arlington signals half way across the Atlantic. With a longer antenna, it should bring them in all the way over. It has but a single adjustment and may be operated from any 6-volt source of current and with the standard radio B batteries. Earphones are used, as only one person at a time needs to listen.

New Officers Elected

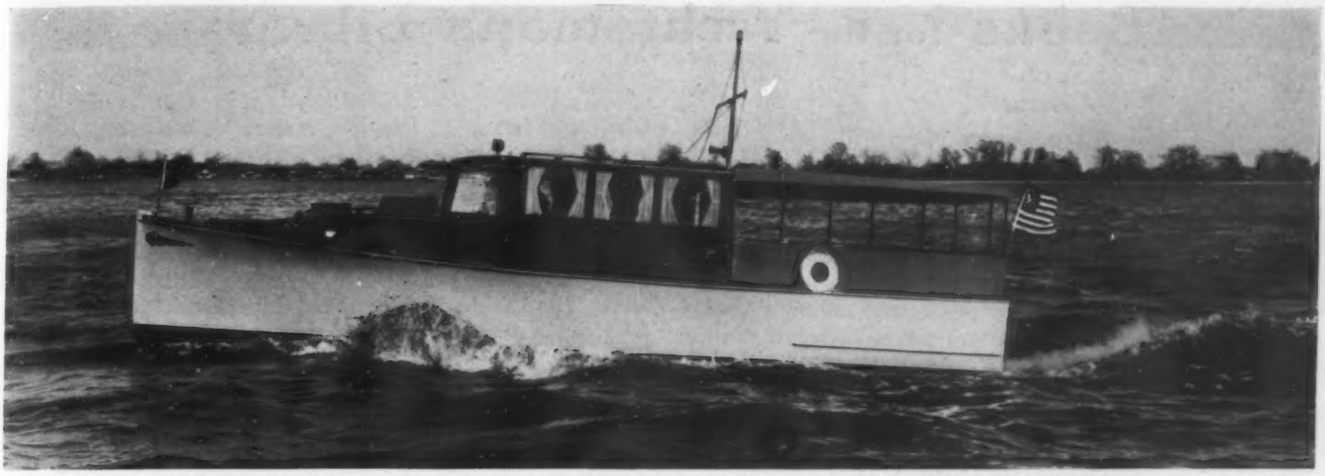
Due to the retirement of Charles King, owing to ill health, the firm of Tams & King, Inc., yacht brokers and designers, of 250 Park Avenue, New York City, beg to announce the election of the following officers: President, Clement G. Amory; Chairman of the Board and Treasurer, Edgar Offer; Vice-President and Secretary, Albert W. Crouch.

Going Strong

An unprecedented demand is announced by V. Withstandley & Co., distributors for Airships, Inc., for that company's products. As compared with last year, the sale of Airships boats this season is 16 times as great,



A 21-foot Dyer Motorcraft taking a turn wide open.



Tai Tai, a 40-foot A.C.F. cruiser owned by Sidney Colgate and powered with a 175 h.p. Hall-Scott motor.

despite the backward spring weather — and last year was the best year the concern's boat division had ever had. Production at the Hammondsport plant is at the peak and, by the time this is in print, deliveries should have almost caught up with orders. Plans are being made for increased production in 1930.

"Turns on a Dime"

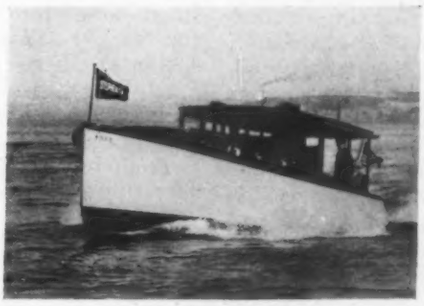
It is not enough for a runabout to be fast; she must be handy as well, particularly if she is to be used in crowded waters. The illustration shows the Dyer "Motorcraft" turning a 40-foot circle when travelling at 35 m.p.h. This peppy runabout is a round-bottomed boat built on the longitudinal system and double planked. She is 21′ over all, 5′ 9½″ beam and 20″ draft. Her motive power is a 110 h.p. Universal motor which gives her a speed of 35 miles an hour. The picture shows how neatly she banks when turning at top speed.

Color Harmony

One of the latest 40-footers built by a.c.f. is owned by Sidney Colgate. Part of her duties are to tow his racing boats to the different regattas. As the yachts composing his fleet of windjammers are painted a special shade of lavender, *Tai Tai*, as the new motor boat is named, is painted to match.

Manufactured, Not Built

Real boats, the result of careful design and thorough testing, are being manufactured, not built, for the discriminating boat lovers who want a runabout that will carry them at speed and, what is most essential, in comfort and safety. Planned at least a year ahead and put through a series of gruelling tests under all conditions of wind and water, Laconia outboards have proved popular since their first presentation to the public. They are manufactured by a group of specialists, each one performing his particular task, and the saving in manufacturing costs, as compared with the old-time methods of individual construction, are passed on to the purchaser.



The husky new Stephens 34-foot West Coast power cruiser. With a 160 h.p. Scripps motor she knocks off 22 m.p.h.

"Speedster" and "Sportster," the two Laconia models, have a pretty turn of speed and are staunchly built craft. "Sportster" is a double cockpit runabout of the displacement type, while "Speedster" is a fast and snappy little step hydroplane. Both types are production jobs, and both are built entirely in the Laconia plant, including all the metal fittings. The outfit of equipment furnished with each boat is remarkably complete.

Engine Manufacturers Combine Forces

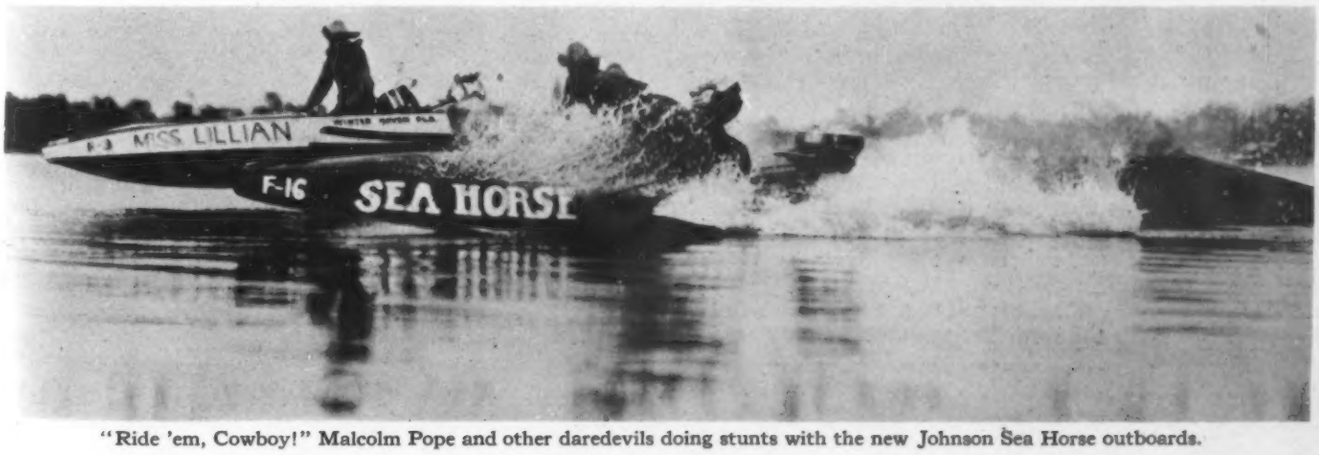
A new corporation, known as the Cooper-Bessemer Corporation, has been formed by the combination of the C. & G. Cooper Co. and the Bessemer Engine Co. The former has been manufacturing engines — steam, gas and Diesel — for more than 95 years and its machines are in service all over the world. The Bessemer concern has been building engines for 31 years and has gained an enviable position in the Diesel field, both stationary and marine, and has built up a notable fame for American Diesels.

The combined engineering talent of these two old, yet progressive companies should insure a strong position for the future and should also, with the extensive facilities for research that are available, be able to develop and test new features of design.

Charles M. Reagle, formerly in charge of Bessemer sales, is a vice-president of the new organization in charge of Diesel sales service, with headquarters at Grove City, Pennsylvania.

Fuel Pumps

Announcement is made by Consolidated Instrument Co. of America that its new Feed-A-Motor fuel pump has been adopted as standard equipment for all boats built by Ditchburn Boats, Ltd. The device is built of brass, bronze and Monel metal and has a capacity of 18 gallons an hour. It is simple in construction and easy to install. In a recent test by the manufacturers, the Feed-A-Motor ran continuously at full capacity for a year and, it is stated, pumped more than 175,000 gallons of fuel in that time.



"Ride 'em, Cowboy!" Malcolm Pope and other daredevils doing stunts with the new Johnson Sea Horse outboards.

Books for the Yachtsman's Library

Famous Yachts

By JOHN SCOTT HUGHES

(Methuen & Co. Ltd., London)

THAT Lord Yarborough, who was the first commodore of the Royal Yacht Squadron, built in 1824 a ship-rigged yacht named *Falcon*. Her tonnage was 351, and a contemporary description says that "in appearance under a press of sail (she) was very noble, not unlike a 20-gun ship of war." The picture of her, from an engraving in the Macpherson collection, which is reproduced in Mr. Hughes' interesting work, amply bears out that contention. This famous craft not only graced the anchorage at Cowes but made many interesting cruises in company with naval vessels. On October 20, 1827, the doughty lord brought her through the hottest part of the naval fight off Navarino, flying his club commodore's burgee at the fore.

This is but one of some fifty biographies of famous yachts chronicled with great care and accuracy by Mr. Hughes. The historical introduction which forms his first chapter is, in some respects, the most interesting part of the book, and one cannot help wishing it were longer; but the whole work is a valuable and somewhat unique collection of yachting lore.

From the British point of view the list is quite complete, but one is puzzled to know by what criterion the selection of American ships was made. *America* and *Aloha* are, of course, included, but vessels perhaps not equally noted, yet far more famous than half the British craft, such as *Endymion*, *Atlantic* and *Hildegarde*, receive mention only as competitors of the Earl of Crawford's *Valhalla* in the Transatlantic race of 1905. The *Intrepid* does not come into the book at all, while Mr. Cochran's *Westward* is described in detail. One feels that the publishers ought to have placed the word "Some" before the title of the work.

There is an interesting section devoted to ocean voyaging in small vessels, where it is a pleasure to read of Conor O'Brien's great voyage in his oddly named and even more strangely rigged *Saoirse*. (Pronounce it if you can!) The pages dealing with Slocum and Voss are rather more than twice-told tales.

The book is beautifully printed and is illustrated with splendid half-tones from engravings, paintings and photographs. Its one real lack is the total absence of plans. Nevertheless Mr. Hughes' book has its place in the romantic history of the "sport of Kings."

JOHN T. ROWLAND.

Falmouth for Orders

By A. J. VILLIERS

(Henry Holt & Co., 1929. $3.50)

A RACE in square-rigged ships from Australia to Falmouth, down through the fogs and gales of 55 South, roaring around the Horn, up through the Trades and the Doldrums to England — probably one of the last races under square sail — is given rare enthusiasm and feeling in this record of the voyage of 96 days. The book deserves a place among the famous tales of life on the great ships with billowing canvas and towering sticks.

Mr. Villiers has not written just another tale of the fast vanishing sailer, but a detailed description of life on a modern square-rigged sailer; of life in an ocean race during 1928. And the life is far different from that described in *Two Years Before the Mast*.

The author shipped as A. B. on the four-masted Finnish bark *Herzogin Cecilie* slightly more than a year ago, when she left Port Lincoln, Australia, with a cargo of wheat bound for Falmouth for orders at the same time as the Swedish four-masted bark *Beatrice*. *Cecilie* was built as a German training ship, to be manned by 90 boys. But in this cruise, and its immediate forerunners, this great steel sailing ship, with its acres of canvas, had a crew of but 19 boys, and a total force of 26. And "boys" they were. The "Old Man" boasted 43 years. The writer was 24 years of age, and as old as any other A. B. or Ordinary. The youngest on the ship was 15, and there were more under 20 than over. Yet these boys, apprentices as well as A. B.'s, were the crew. And what work they did! What men they were! The tale is not one of glorification of that crew, but a commonplace narrative of life on the yardarms. If the words of the author ever fail to depict that life (which they do not) photographs from aloft complete the picture.

It will be a calloused reader who will not thrill to that race; thrill to the discovery of a girl stowaway; thrill to battling the thrashing canvas on the royal yards. Aye, there is even a thrill to the anxious days of drifting through the Doldrums, wondering where *Beatrice* was.

The book was written, we gather, while at sea, and the impressions put on paper as they occurred. And such an impassioned plea it is that Alan J. Villiers, A. B., offers for the old sailer as a training school for ship officers. Under sail, in such a ship, boys learn far more than do the "maids-of-all-work" who ship in steam, as did this reviewer. If the new Secretary of the Navy ever needs to strengthen his belief in sail, this book will help do it.

Aside from the story of the race the author gives an interesting recital of the small handful of ships that still sail the seas under a cloud of canvas rather than smoke.

The trip had the makings of a good story. Mr. Villiers had the will and the passion to put that story on paper. If a man who shipped in steam enjoyed it, the man who loves the song of a singing sheet will enjoy it more.

JAMES G. STONE.

Cap'n George Fred

By CAPTAIN GEORGE FRED TILTON

(Doubleday, Doran and Company, 1929. $4.00)

IN these days of sophistication, of dinner coats, and professional thrill hunters, there is a sense of refreshment and satisfaction when one comes across a book whose pages are replete with a rugged enjoyment of life, a life full of thrills and adventures. Such a book is *Cap'n George Fred*, an autobiography of Captain Tilton, done by an old-time skipper of whaling vessels in an old-time manner.

Like many boys of his day, George Fred tried to run away from home in his efforts to follow the sea. Several times he was caught, but finally he managed to stow away on a whaler for his first trip. From then on his life unfolded rapidly, with a steadily accumulating number of adventures.

He had due number of occasions when he jumped ship, once, when still a youngster, in the Azores; in New Orleans, where he worked on sugar plantations and in lumber camps; in Hawaii, where he worked at anything and everything until he shipped again. Shipwrecks, too, were not unknown to this lad. He was cast adrift from a sinking ship for the first time off Hatteras. But more thrilling adventures of this nature followed later in the Arctic.

(*Continued on page 118*)

POPULARITY *plus*

COOL, green waters that beckon . . . the staccato bark of a trusty outboard sweeping you on and on . . . putting the miles *behind* . . . and thrilling you with joy in the great outdoors. At last . . . you're there . . . rod poised, muscles taut . . . ready for a day of real sport.

There's where the outboards make their hit . . . win their friends and hold them. Good performance b-r-e-e-d-s popularity!

It's no mere coincidence that finds Valspar's sturdy finish at all the gala occasions of water-sports . . . fishing, racing, cruising.

Outboard or Diesel-powered craft . . . it makes no difference!

Sailormen for a day, or the old yarn-spinning "salts" tell you but one tale when it comes to finishes. It's VALSPAR every time . . . with men who count performance *first.* Because Valspar can take it and *like* it . . . sun, wind, and rain, salt water, oil and grease.

In a bad blow or sultry calm Valspar is safe . . . dependable . . . resistant . . . come what may.

VALENTINE & COMPANY
386 Fourth Ave.
New York, N.Y.

VALENTINE'S VALSPAR
The Varnish That Won't Turn White

Photo by Rosenfeld

LUX is Standard Equipment on the Wheeler "Playmate" and "Super-Playmate" Cruisers.

Showing installation of the LUX cylinder on the Wheeler Cruisers.

Fire Holds No Terrors For the LUX-EQUIPPED

The possibility of fire is something which no boat owner likes to think about, and yet the danger is always lurking behind his back—sometimes to appear at the most unexpected moments.

No matter how sudden or unexpected the fire, the owner of a LUX System is never caught napping. For the most terrific blaze of burning oil or gasoline is extinguished by LUX Gas in a few seconds.

Besides extinguishing the fire completely without any harmful after effects, the LUX System is operated without exposing the operator to the flames. The LUX Gas, released from the cylinder by the pull of a handle in a safe part of the boat, is distributed to the protected area through a piping system.

LUX protection may be had at only a nominal cost—some systems are as low as $55.

Walter Kidde & Company, Inc.
140 Cedar Street
New York

LUX

Underwriters' Labeled Yacht
Fire Extinguishing System

Mangroves and Hurricanes

NASSAU, BAHAMAS.

Dear Cap Stan:

BECAUSE a yachtsman has already written to me about cutting away spars in a hurricane, and because others may do so, give me room Under the Lee of the Longboat while I spin a bit of a cuffer.

Two points are always made down here concerning small craft in hurricanes: One is, put your boat into the mangroves, tie her up to them, and haul her clear afterwards. The other is, always cut away your spars. I'm not answering these points from the point of view of a sponge fisherman, local boatman resident on the beach of a four-foot harbor, or any other seafarer except the visiting amateur sailor in a vessel built and suitable for general deep sea work.

Mangroves rarely grow in deep water. In a somewhat wide experience I have seen mangroves on African, Australian, Pacific Island, Bermudian, Bahamian, and Asiatic shores; but never, to any extent, in water more than four or five feet deep at the shore. When the man who knows nothing but shoal draft spongers, with loose inside ballast, tells the owner of a deep keel, heavy shoed, tall water vessel to stick his boat in the mangroves, he's talking through his fundamental hat, and if he had brains enough to know the difference between four feet and eight he'd perhaps hesitate before talking mangroves. I challenge any boatman, wherever born, to put his eight-foot draft ship, with her seven-ton iron keel, into mangroves lying at tide edge, himself alone or with a crew, in the time given by an approaching storm.

As for cutting away spars, that's no news to anybody who ever went to sea in sail. The trouble is, again, how is a single-handed sailor to do it with the means at his disposal? The men down here who talk so glibly about it, and do it, too, I know, talk of native boats with perhaps single rope shrouds, and a crew of ten or more, in conditions where, if tools are lacking aboard, a man can easily step overboard into four or five feet of water, walk ashore to his house, and bring off axes, or what have you.

The gentleman who wrote me immediately the last *Gauntlet* article appeared, wrote in friendly fashion, suggesting this expedient and asking what I thought of it. Others have spoken about it down here with the tone of oracles. And the most downright of all has boats of his own. First of all, a man never wants to cut down his spars if he can help it. If he does decide to do so, will somebody please tell me how he would do it, alone, in these circumstances?

Single-handed, with a heavy boat, wire rigging — and good wire, too — the ship holding on without the slightest change of range bearings right up to what seemed to be the climax of the hurricane; then, when it blew so hard that a man simply could not stand erect, or keep aboard at all without hanging on with both hands, I want to be told how to go about cutting away spars single-handed, with any of the tools you'll find as equipment in such a vessel.

The Oracle says, always have an axe, wire cutters, every tool you could possibly need. The Oracle I know down here, has boats of his own: one, a sizable sail boat which he presumably keeps ready for the emergency he talks so glibly about. I know the boat. The only axe aboard that I saw in two voyages was the small hatchet I loaned from the old *Gauntlet*. How about cutting spars with that? Yet it is about all the chopping tools you'll find in most small cruisers, isn't it? Somebody h'ist himself and speak — *from experience.*

Cordially,

A. E. DINGLE

Choosing Between Gas Engines and Diesels

(*Continued from page 46*)

In its psychological aspects, the fire hazard is another matter. So, too, are the many other considerations which may influence the choice between a gas engine and a Diesel engine, but they have been presented in these pages before and need not be repeated here. The cost factors alone have been treated in this article, because, fundamentally, they determine whether there is a choice to be made.

THIS IS THE AGE OF ALUMINUM

GET OUT ON THE WATER

A million miles of open road are waiting for you. Nature's own road. Broad and smooth and sparkling, or with an exhilarating chop and roll that gives you a thrill a minute. The water—where the traffic signals all are "green" and the fresh, clean air of all outdoors surrounds you. Get out on the water, and as you breeze along, think of this: If it were not for the great strength and light weight of aluminum and its alloys, outboard motors could never have reached their present perfection. There is nothing else which could possibly produce such an ideal combination of lightness, ruggedness, convenience, power, and portability. LYNITE 195 heat-treated aluminum casting alloys especially are a vital factor in producing good motors, for they are exceedingly tough and strong and have an exceptionally high resistance to shock and salt water corrosion.

When you buy an outboard motor, ask your dealer about the pistons, forgings and heat-treated castings. If these vital parts are made of LYNITE, you can be sure that your motor is one of the best.

LYNITE
ALUMINUM ALLOY
PISTONS AND RODS

ALUMINUM COMPANY OF AMERICA
PITTSBURGH, PA.

ALUMINUM · IN · EVERY · COMMERCIAL · FORM

A NEW KETCH

NOW BUILDING

55′ 9″ o.a. x 38′ w.l. x 12′ 5″ beam x 7′ 3″ draft

An improved design of several previous Alden ketches that have made this type well known wherever yachts are seen. Well known for their speed under sail, ease of handling, seaworthiness and comfort.

Ideal for off shore cruising or racing, providing excellent accommodations below. Glance at the plan below and note the very roomy owner's double stateroom aft obtained by placing the motor forward. Note the large main cabin, galley and forecastle for two men (only one needed).

This ketch is now building for delivery early in the summer. You will have difficulty finding a more popular type, or a more ideal craft of its kind.

May we send you full plans and details?

JOHN G. ALDEN

Naval Architect
Yacht Broker

148 STATE STREET, BOSTON, MASS.

Postscript's Winter Cruise

(*Continued from page 78*)

that I was worth $5,000 reward, and nothing was going to get us out of jail if they could help it.

We passed the night with little sleep, for the benches were short and the slats were far apart, and in the morning began anew our attempts to gain release. Early in the afternoon an inspector of the Havana Judicial Police arrived on the scene in response to the telegrams and took us aboard *Postscript* where we cleared ourselves in a few moments. But meanwhile the district judge of Vinales had gone off somewhere to fight a fire, and only he could give us official release. We prayed for rain, and offered our services as firemen.

Eventually we were permitted to put up $25 of Mr. Meadowcroft's money as a bond to insure our appearance the next day, and it was then made known to us that we could sleep in the hotel across the street instead of in the jail. That was a master stroke on the part of the hotel-

***Postscript*, with dinghy lashed on deck, on the passage from Jamaica to Havana, around the west end of Cuba.**

keeper to get trade, but Mr. Meadowcroft, who had already suffered several days at the hotel, insisted on frustrating such an attempt at petty extortion, with the result that Pete and I shared Mr. Meadowcroft's bed, while he spent the night rolled up in a blanket under the yucca trees behind the hotel. We slept soundly until nearly dawn, when a loud grunt alongside Pete's pillow revealed the presence of a pig. Then, as we glanced around the room, we saw chickens roosting on an armchair, a dog curled up in our host's steamer trunk, and countless little lizards crawling all over the floor.

We appeared at the police station and presented our receipt for the $25 but the money was not forthcoming. It was asserted that although we were formally cleared of suspicion as far as being bank robbers was concerned, we were now in the custody of the customs officials; no one seemed to know just why. This was Thursday morning. We returned to our boat in company with the Customs Agent and upon solemnly promising that we would not slip anchor we were permitted a certain freedom, although for a while we were honored by the presence of the village constable. He perched himself on the gallows frame and kept asking for American cigarettes, the weakness of all Cubans.

Before long a telegram from the Customs Headquarters in Bahia Honda, 40 miles east of Esperanza, explained that we were to make out an affidavit stating that our landing had been a forced one occasioned by shortage of food. We immediately signed such a statement and gave it to the Customs Agent, who then wired Bahia Honda that

(*Continued on page 102*)

Another Enthusiastic ENDORSEMENT of KERMATH

This letter from Huckins Yacht Corporation is a typical endorsement of Kermath engines. Such organizations know engine efficiency and economy.

80% of the world's prominent boat builders standardize on Kermath.

Read this letter carefully. It gives you the very information you need in making your motor choice.

Write for the latest Kermath catalog. It contains a wealth of information.

3 to 200 H.P. **$135 to $2300**

KERMATH MANUFACTURING COMPANY
5893 Commonwealth Ave., Detroit, Mich.
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New York Show Rooms
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"A KERMATH ALWAYS RUNS"

This 45 ft. Fairform Flyer (illustrated below) built for David M. Goodrich, Chairman of the Board, B. F. Goodrich Rubber Company, is powered with twin 150 H.P. valve-in-head Kermaths.
Mr. Goodrich, like thousands of other discerning yachtsmen, knows that Kermath is *Best in the long run.*

HUCKINS YACHT CORPORATION
BUILDERS OF THE FAIRFORM FLYER
PLANT AND GENERAL OFFICES
JACKSONVILLE, FLORIDA

March 19th, 1929.

Mr. J. B. Farr, President,
Kermath Manufacturing Co.,
5880 Commonwealth Avenue,
Detroit, Michigan.

Dear Mr. Farr:

Having run your six cylinder Valve-in-Head motors under very hard service, in our demonstration boat now for some months, I think you would be interested in the following facts:

1. This pair of motors drive the Fairform Flyer at slightly better than twenty miles per hour average, at speeds of from 1550 RPM, with four people aboard, to 1600 RPM with twelve people aboard. This is standard cruising speed with throttle half open, at about sixty per cent power factor.

2. Wide open, these motors turn up to better than 2000 RPM, and drive the boat at twenty-six MPH.

3. I am perfectly delighted with the way these motors stand up under the hardest kind of service. With the exception of occasionally cleaning spark plugs, and periodical changing of oil, they have required no attention whatever.

4. On a recent trip, Commodore Chapman commented very favorably on the very small amount of vibration.

5. The most surprising fact is their low fuel consumption. After these motors had been run hundreds of hours, and driving this 42' full blooded cruiser, loaded down with seven people, full tanks and full cruising equipment and stores, on a run of 94.2 statute miles, they used 97 gallons exactly. This was a fuel consumption of 20.2 gallons per hour, for a pair of motors rated at 300 HP, or .97 gallons per mile, or 1.3 miles per gallon.

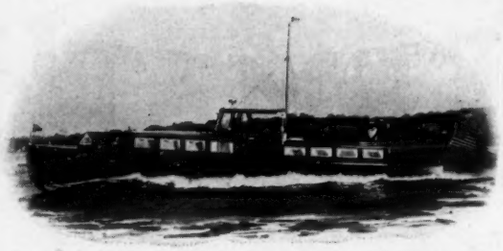
I doubt if there are any motors built that are more reliable in their performance, quieter in their operation, more flexible in their handling, or more economical in their use of fuel.

Very truly yours,
Frank H. Huckins
President

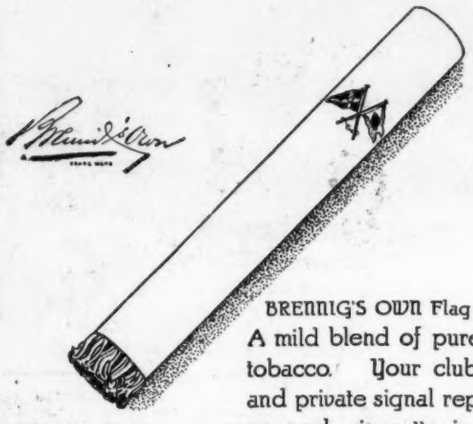
FHH:LL

THE HUCKINS FAMILY HAS BEEN CLOSELY CONNECTED WITH YACHTS AND YACHTBUILDING FOR THE GENERATIONS SINCE ROBERT FAIRFORM HUCKINS BUILT HIS FIRST BOAT NEAR DOVER, NEW HAMPSHIRE IN 1868

BRENNIG'S OWN Flag Cigarettes
On board "Manchonoch II"



Owner, Clarence H. Mackay, Esq.



"The original brush end cigarette"

BRENNIG'S OWN Flag Cigarettes
A mild blend of pure Turkish tobacco. Your club burgee and private signal reproduced on each cigarette in all their colors

The same flags, in colors, on book matches

Prices and Illustrated Leaflet upon request

BRENNIG'S OWN
ASTOR TRUST BUILDING
501 Fifth Ave. at 42nd St. New York

The crew of *Postscript* under arrest because the skipper looked like a fugitive embezzler from the States, for whom there was a reward of $5000.

Postscript's Winter Cruise

(*Continued from page 98*)

we had complied with the order and asked to be released. On Friday word came back that such an affidavit must be presented in person at the Bahia Honda office. We replied that we would be delighted to set sail at once for Bahia Honda. Friday afternoon the answer came that we must be brought in custody of the gunboat because we were under arrest for failure to present such an affidavit within 48 hours after landing. So at last, after five days, we learned what we should have been told when we asked permission to go ashore. When we asked why we had not been notified originally of such a requirement, the Customs Agent said it was all news to him and that he had never heard of such a regulation himself. Meanwhile Inspector Medina had returned to Havana with word that we were out of jail, and the Embassy and Consulate, and the Judicial Police, assuming that we were once more on our way, had ceased taking steps in our behalf.

Things went from bad to worse, from the humorous to the ridiculous. While our telegrams had been going back and forth between Esperanza and Bahia Honda the gunboat slipped away without being notified that she was to tow us to Bahia Honda. We were told that she had gone on a fishing trip and would be back soon. It seemed a little queer, even to us, that the Cuban Navy should go off fishing, but we were ready to believe anything by that time. Saturday morning the gunboat returned with a load of confiscated fish traps, which explained her mission down the coast, but by the time they had been unloaded the engineer reported a shortage of coal and water, and the captain wired Bahia Honda that it would be impossible to proceed until Monday as he would have to refuel. And besides, he told us, there was a baseball game in Esperanza on Sunday and all his crew would object if he did not wait over for it. Moreover, he explained philosophically, we had been held up so long already that surely two days more wouldn't matter!

We had brought baseball gloves with us, for some reason or other, and on Sunday afternoon we were both invited to play with the local teams. Pete felt energetic enough to accept, and, assisted by a dead horse, played left field for the *Superfinos*. Judging by the swarms of small boys who followed him around after he returned from the game, Pete must have acquitted himself more nobly than he would admit. I tried to find out from a spectator how good a game he had played, but there were no baseball terms in the Spanish dictionary and about all I could gather was that he had played a very "strong" game in the field — and even then I was not quite sure whether that referred to Pete or to the dead horse.

By Monday afternoon we had been officially discharged at Bahia Honda, given "all necessary papers" for

FOR PRIVATE PLANE, YACHT AND CAR

This Fokker Flying Yacht is decorated throughout with Schumacher fabrics. In the cabin a Rodier creation of blending rectangular forms that follow a line as swiftly-moving as the plane it graces. Window curtains of tanjore gauze. Pilot seat, black Fabrikoid.

Fabrics that accent the modern note

Yacht by Cox and Stevens

An exquisite green damask imbued with a richness completely in harmony with the luxury of "Vagabondia," William L. Mellon's private yacht.

For sport or afternoon wear the smart car adopts slip covers designed in the new art manner. In the Schumacher fabric, used in the Cadillac coupé above, a modernistic note dominates the design—an amusing skyscraper pattern worked out in cotton and rayon.

WHAT a stimulating age we live in! More and more in our surroundings we feel its new influence. In a thousand manifestations we reflect its vital spirit. A spirit that brings to the use of decorative fabrics a new and inspiring importance.

For if you are modern, and of course you are, even your car—or perhaps it is a private yacht or plane—will witness some subtle touch of *l'esprit nouveau*. In its decoration it will be no less personal than your home—and no less modern.

So stimulating in variety, so surprisingly adaptable in serving every decorative purpose in the home, Schumacher textiles quite naturally—and modernly—extend their decorative and practical usefulness beyond the indoor realm.

Here we show three interesting contemporary uses for Schumacher fabrics. In the Fokker plane and the car—patterns in the new art manner. In William L. Mellon's yacht, "Vagabondia," an exquisite damask of classic design.

In the Schumacher collections you will find authentic copies or beautiful adaptations from the great periods of the past, side by side with designs as modern as this age we live in.

***"Fabrics—the Key to Successful Decoration"* . . This helpful booklet will be sent to you without charge upon request. It is planned to help the woman who wishes her home to be successfully decorated, but has not the time or the inclination to make a deep study of interior decoration. F. Schumacher & Co., Dept. S-6, 60 West 40th Street, New York, Importers, Manufacturers and Distributors to the trade only of decorative drapery and upholstery fabrics. Offices also in Boston, Chicago, Philadelphia, Los Angeles, San Francisco, Grand Rapids, and Detroit.**

F·SCHUMACHER·&·CO·

Does it make you slightly green-eyed—

to see other skippers putting new boats in the water?

Are you satisfied—now you've had a foretaste of summer—that land-lubbing is an unessential occupation?

Here's what you do. Study over all the boats again. Check them over point by point, design, materials, workmanship, power plants, reputation and price.

Then select the Baby Gar model you want, telephone or wire Gar Wood or the nearest dealer, and you'll be master of as sleek, as trim, as soft riding a boat as Gar Wood ever built. And you can't beat that—now can you?

Another thing—you may now have the advantage of buying Baby Gar in the same modern sensible way that you purchase your car—out of income.

We suggest you wire or phone to insure a full summer's enjoyment of your Baby Gar, for nowadays the rush is on.

Baby Gar "30"	-	$ 2,950 - $ 3,550
Baby Gar "40"	-	$ 4,500 - $ 5,350
Baby Gar "50"	-	$ 8,950 - $10,950
Baby Gar "55"	-	$10,950 - $12,950

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presentation at Havana, and about dusk we set sail in the face of a gathering squall. The gunboat followed us out, took a couple of vicious rolls in the big seas which presaged the coming wind, and then sought shelter in a hasty retreat. We sailed all night in the rising westerly, lugging full sail until we lowered everything about 4 A.M. to await daylight before attempting to enter Havana harbor. It was blowing a 30-mile breeze when we ran in under our staysail, and the 90-foot converted fishing schooner *Abacena*, flying the yacht ensign, made particularly bad weather of it as she went in just ahead of us.

Shall I describe the new complications that threatened us in Havana? Perhaps it is enough to say that we required the assistance of the Consulate to effect our entry, and 24 hours later we were calling on the Sea Office again to straighten out another technicality! At the present writing, official Cuba is divided over our case. One branch seems to think we have been imposed upon and deserve an apology, and the other branch, notably the Customs, seems to consider that the affair was handled quite efficiently. The Judicial Police, who obtained our release from jail as promptly as could be expected, are inclined to treat us rather splendidly, and we have been given a letter from the Chief which is designed to keep us out of jail for the remaining few days of our visit.

If nothing further develops within the next few days we hope to obtain our clearance papers and set sail for New York or Barnegat. Oh, of course we shall visit Cuba again some day, for we are both quite proud of our distinguished acquaintances — and it isn't in every country that qualification as a bank robber opens the door to official circles. But on our next visit we shall come to Havana first, where the customs authorities have had more experience than at Bahía Honda or Esperanza.

(To be continued)

Keeping the Course Clear

(Continued from page 55)

craft. This tends to create confusion and delay.

The official Annual Report of the United States Coast Guard for the year 1928 has this to say:

"During the year, eighty-four regattas and marine parades were patrolled. The customary duty of patrolling and supervising regattas, marine parades, boat races, and similar events was continued during the year in various parts of the country where service forces were available. This has been a long-time duty of the Coast Guard and it has performed the work from year to year with gratifying results. It is a duty of considerable, it may be said, serious import. There is much to be reckoned with on these occasions, especially at the larger events. The courses must be kept clear at all odds. Contestants and spectators must be protected. The public safety throughout must have the closest consideration. The movements of vessels must be regulated, crowding — always a source of danger — prevented, and order maintained. All this calls for the exercise of good judgment, discernment, resourcefulness, and expertness in the management and maneuvering of vessels and boats."

Now that the racing and regatta season is approaching, it appears an opportune time to call the attention of all yachtsmen to the attitude of the Commandant of the Coast Guard in regard to patrolling marine events, as expressed in the quotation from his Annual Report, and to impress on officials of organizations expecting to make use of this service the desirability of making application in ample time to insure a sufficient patrol force and to permit of opportunity to confer with the officer in command. Not only will the patrol be efficient, but friction and hurt feelings will be avoided. It is the wish of those in command that yachtsmen and followers of the sea may know more intimately and understand the officers and men of the United States Coast Guard, who for one hundred and thirty-nine years have given of their courage, endurance and seamanship, in aiding those who go down to the seas in ships.

FROM THE AIR— GUESTS OF THE "COUNTRY BOY" WATCH SPRING CREEP NORTH

THE RARE DELIGHT of viewing—and feeling—the northward approach of spring from the air was the unusual experience enjoyed by the flight guests who accompanied Mr. James C. Willson on a recently completed tour in the latter's Sikorsky Amphibion—"Country Boy."

Starting from New York, the party flew over the Mid-west to the Mississippi, then down to New Orleans and returned by way of the Atlantic Coast. Sixteen stops were made—some on land and others on water, for the Sikorsky operates with equal ease from either element.

The Sikorsky is exceptionally popular with sportsmen because it offers the most luxurious means of air transportation available.

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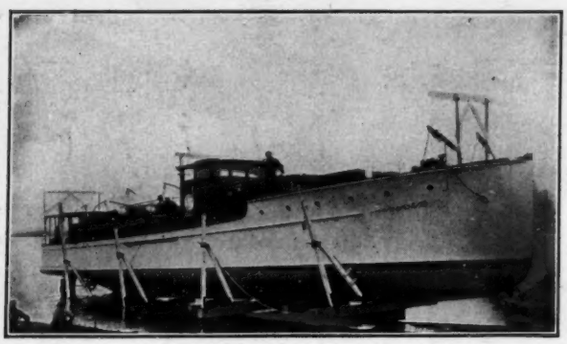

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The First Long Distance Race

(*Continued from page 72*)

phantoms produced by ardent wishes and strained eyes. Finally, one light was located, about a point off the lee bow, and apparently not very distant, and was thus seen by all the crew. The Mate reached for the water-logged light list, looked up Block Island North Light, and then bent his eyes in the direction of our find. It had disappeared. Indeed, the blackness had become more palpable, more solid, and we all felt that we were meeting Block Island's most dreaded and most frequent weather condition — fog. We growled disgustedly, to hide our anxiety. Some minutes passed away, all eyes straining in the direction of the vanished beam. Then the Skipper could endure it no longer.

"That must have been one of the lights on Block Island, so we're running straight into the land, which is very bad. Now, how far off the Island is that bell that's on our course?" The Mate sleepily read it off as one and a half miles. The distance rather astonished the Skipper, who, however, failed to have it checked up. Half an hour passed away in mental agony, while the crew strained their ears for the bell buoy — a welcome relief from looking for lights. All of a sudden a light appeared — high, distant, feeble. It was a blinker, and although no one could agree concerning its intervals, the Skipper was fairly certain that it was one second flash, one second eclipse — the light at the Breakwater entrance.

"Fairly certain," when one is rushing toward an object at 7½ knots on a thick night, does little to bring peace of mind. Although the interval was correct the light seemed to be a distant light, possibly Montauk. Then, too, although the light had appeared dead ahead, the bell buoy, lying one and one-half miles from it, and directly on our course, had not been heard, which seemed strange in the heavy sea that was running. The light list half proved to our doubting minds that the light in question could be no other than the Breakwater entrance. We kept on, while the breeze freshened; we would have given anything for the breeze to slacken, to drop out, so that we might approach this mysterious beacon at a slow speed to reconnoiter. "*Dis aliter visum*," and our rate of speed kept on increasing as we brought the light rapidly nearer. A low, dull roaring, gliding unconsciously upon our senses, had been becoming louder, more obtrusive.

"What's that? It sounds like a railroad yard!"

"Maybe it is — but there's no railroad on Block Island! *It's surf!*"

A shudder went through all of us as we heard the increasing and furious roar of cold waves breaking savagely on hard rocks. We mentally braced ourselves for the rending shock and kept on as though driven unwillingly by a greater force behind. The roar was becoming louder, was filling our ears, seemed all around us. A scrunching, grating sound was heard — pebbles on the beach!

"Jibe, O! Close-haul everything!" and we were headed away from that place of horror as rapidly as we could. The surf grew less loud, less insistent.

"What's that?" whispered the Mate in terror-stricken tones.

"What?" asked the Skipper, even more frightened.

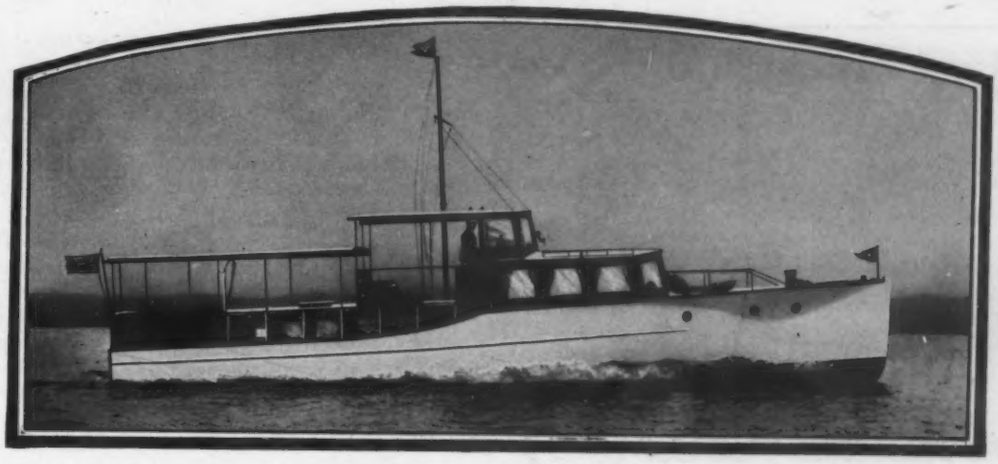
"That. Hear it?"

"No. What?"

"That sound of waves." A terrified silence, broken by the occasional hiss of a breaking wave crest.

"Oh, that's only the tops of waves breaking, that's all," said the Skipper in far from confident tones. Then, in argumentative, assertive tone, "If we're headed back the same course we came, we can't hit anything, can we?"

The Skipper would have given anything for an affirmation, but none was forthcoming, so he made it for himself, grew quite angry with himself for not believing it with



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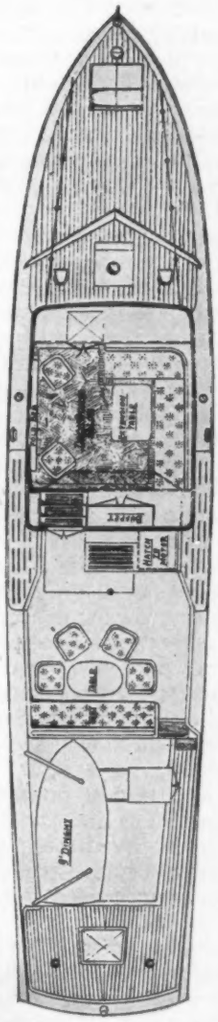

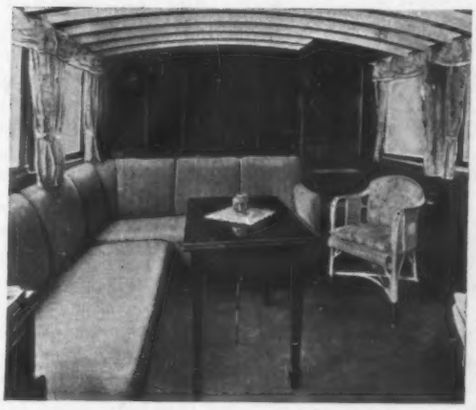

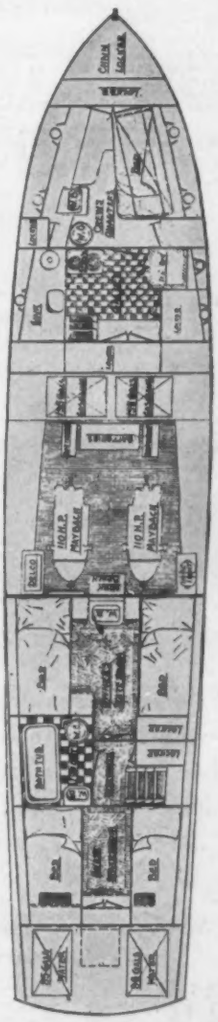

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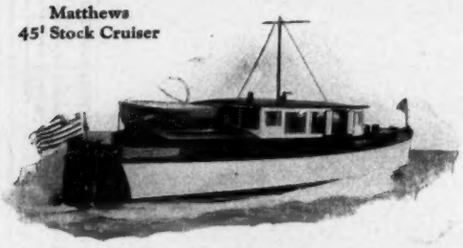

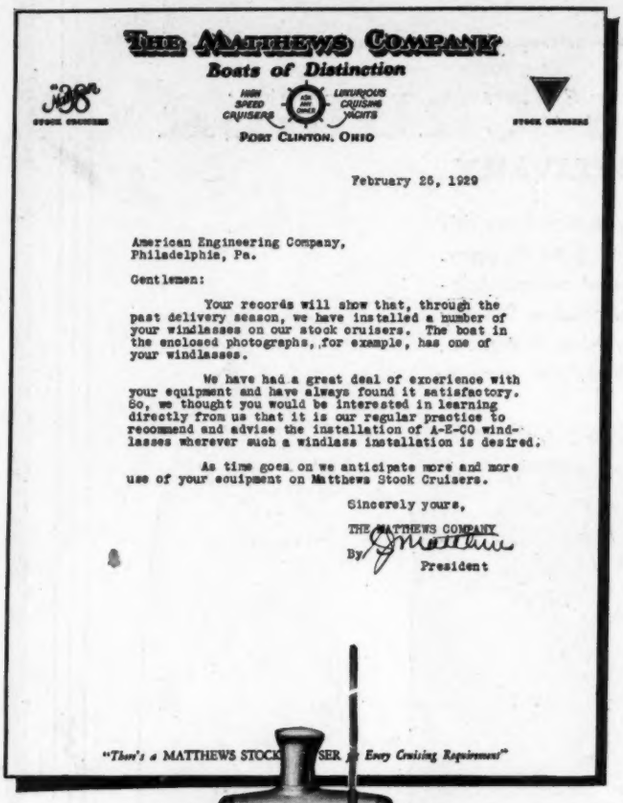

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HIGH SPEED CRUISERS · LUXURIOUS CRUISING YACHTS
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February 28, 1929

American Engineering Company,
Philadelphia, Pa.

Gentlemen:

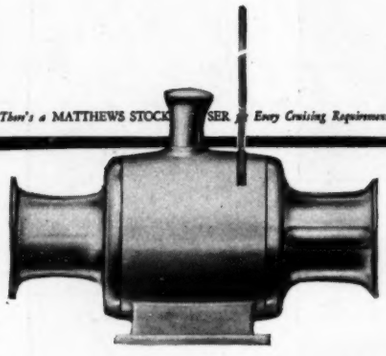
Your records will show that, through the past delivery season, we have installed a number of your windlasses on our stock cruisers. The boat in the enclosed photographs, for example, has one of your windlasses.

We have had a great deal of experience with your equipment and have always found it satisfactory. So, we thought you would be interested in learning directly from us that it is our regular practice to recommend and advise the installation of A-E-CO windlasses wherever such a windlass installation is desired.

As time goes on we anticipate more and more use of your equipment on Matthews Stock Cruisers.

Sincerely yours,
THE MATTHEWS COMPANY
By [signature]
President

"There's a MATTHEWS STOCK CRUISER for Every Cruising Requirement"



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WITHOUT increased effort, this sturdy windlass enables you to weigh anchor twice as fast as other hand windlasses . . . It works on both strokes. Compact . . . durable . . . efficient . . . The choice . . . for Matthews cruisers and other fine boats.

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complete faith, succeeded in converting it into a point of honor.

Nike was heading about N.W. by W. on a course the reverse of E. by S. ½ S. As we were endeavoring to pick up the bell buoy located one and one-half miles off the Breakwater, we held for what seemed approximately that distance, and then came about, making several short tacks, but without locating the buoy.

"Well, we'd better head back for the light. We mustn't lose that, too. Maybe we'll find the entrance this time."

"What! Go back to that surf again? Can't you stay around here till morning, and then try to get in?"

"Say, don't you realize that we're racing? You may be a quitter but I —"

"None but you would suspect we're racing!" Other duties prevented the chastisement of the unruly crew, but tempers were strained to the breaking point, and beyond.

"Well, I'm going to sleep. I might as well be drowned in my sleep. When a fellow ships with a damn fool —"

"For all the good you're doing, I'd be much obliged if you'd jump overboard."

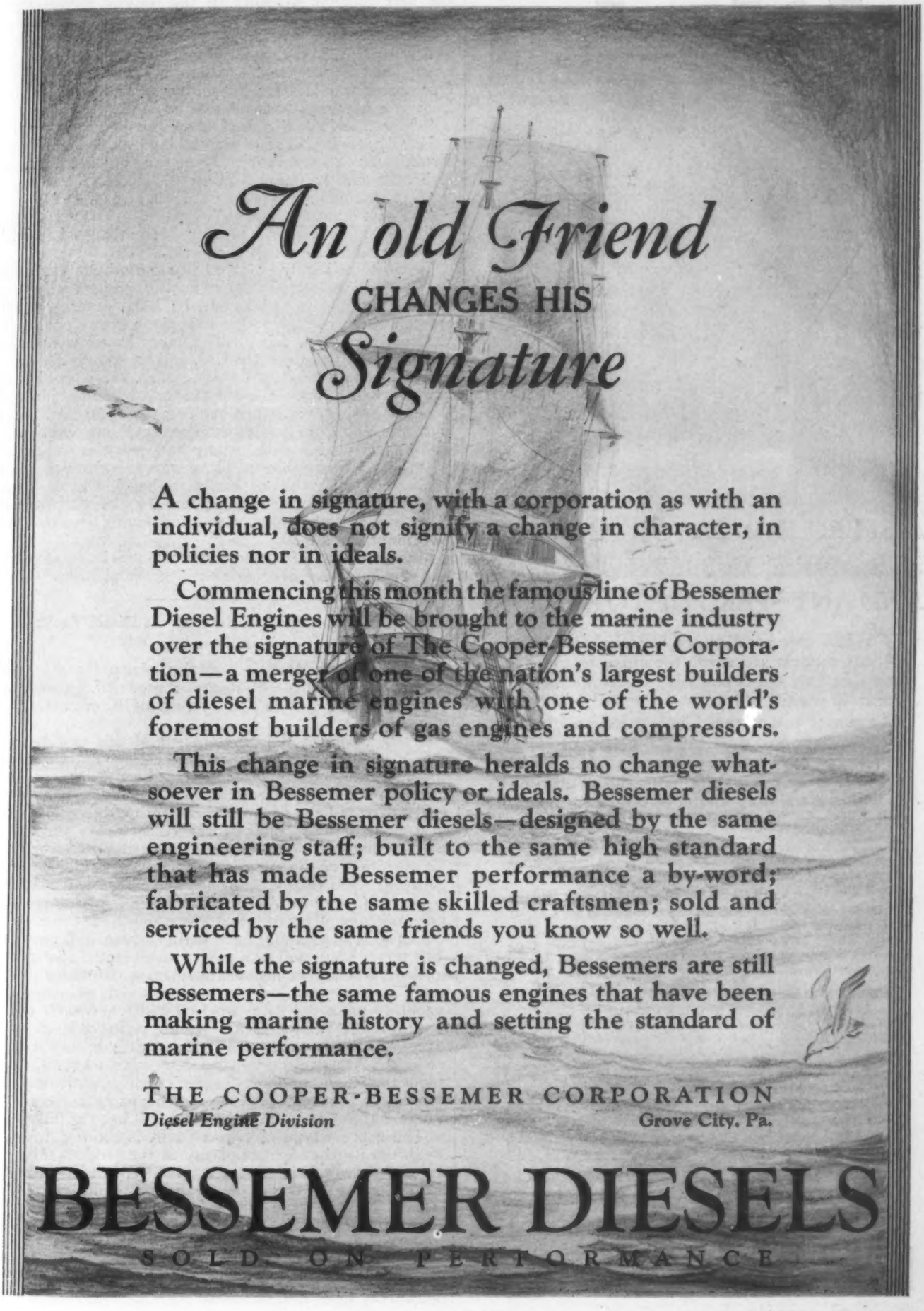
A somewhat affected snore was the fitting answer. Soon all the crew, since they had no tiller or responsibility to keep them awake, were slumbering as peacefully as a narrow cockpit, studded with cleats and winches, allows. This had the advantage of at least restoring unity to the ship.

Through the blackness, *Nike* rushed ahead, E. ½ S. for the mysterious light and the surf. But as the minutes passed and the roar of the surf became apparent, no light was visible. The roar of the surf increased, but thick billowing waves of fog pressed down tightly around the yacht, shutting out all view of the light. Again *Nike* stood away, but this time, as we had no more definite location than a dead reckoning fix, I decided to stand on and off within earshot of the surf until morning, or until again sighting the Breakwater Light.

The next three hours until daybreak were the dreariest in my life. The exaltation of the race was gone, leaving a feeling of hopeless failure, of inadequate knowledge. The thought of the other skippers, warm, dry, asleep, awakening in the morning to laugh at the one who had lost his way, brought blushes of deep shame. Mental exhilaration gone, cold, wet clothes, fatigue, hunger, eye-strain, pressed their way more and more upon my consciousness. But worst of all was the feeling of inadequacy and of incompetence. The weary hours dragged on their monotonous length, as *Nike* tacked and stood back, tacked and stood back, never losing that dull roar of the surf continuously breaking on the jagged rocks of Block Island. At length the black denseness in which *Nike* moved took on tinges of gray, then became all gray. Only the long seas rolled steadily and sadly toward us from one side of the gray curtain, passed under us with a mournful shove of their broad shoulders, and disappeared solemnly under the other side of our encircling cloud. There was both beauty and melancholy about this forlorn sunrise, so wan and cheerless, about the hoary seas, so joylessly exerting their Titanic force.

From a navigational and purely human standpoint, daylight seemed to have helped us little, and we had heard of three-day fogs. The crew awakened, groaned, and shivered. The seas were too heavy to permit cooking with a portable stove, and no one possessed sufficient energy, anyway.

Suddenly, all hands raised intent ears; a faint and distant clang was audible, became louder, somewhere behind the curtain. It could be heard even above the joyous babble that broke out when all hands recognized its sound and became satisfied of its reality. Its clanging seemed almost alongside, yet it remained invisible. *Nike* ascended the long back of a great swell, and there, at length, down in the hollow, was a dim shape, emitting brazen clangor,



An old Friend
CHANGES HIS
Signature

A change in signature, with a corporation as with an individual, does not signify a change in character, in policies nor in ideals.

Commencing this month the famous line of Bessemer Diesel Engines will be brought to the marine industry over the signature of The Cooper-Bessemer Corporation—a merger of one of the nation's largest builders of diesel marine engines with one of the world's foremost builders of gas engines and compressors.

This change in signature heralds no change whatsoever in Bessemer policy or ideals. Bessemer diesels will still be Bessemer diesels—designed by the same engineering staff; built to the same high standard that has made Bessemer performance a by-word; fabricated by the same skilled craftsmen; sold and serviced by the same friends you know so well.

While the signature is changed, Bessemers are still Bessemers—the same famous engines that have been making marine history and setting the standard of marine performance.

THE COOPER-BESSEMER CORPORATION
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A SPEED INDICATOR AND LOG FOR ANY BOAT UP TO 75 FEET AND ANY SPEED UP TO 60 MILES

THESE speed indicators are reliable. Different models are made for different types of boats, but all are dependable instruments, and accurate within 2%.

At a glance you can read your speed, and, if you wish it, your trip mileage and elapsed mileage as well. In navigating by chart and compass the speed indicator is a great help, and at all times it makes it a simple matter to hold your boat to her best running speed.

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Passage of boat through the water creates the pressure which is indicated on the dials. There is no connection with the motive power, nor is towage of auxiliary apparatus required.

National Marine Speed Indicator
4 Models, $25.00, $30.00, $35.00, $40.00, for speeds up to 15, 25, 35, 60 M. P. H.

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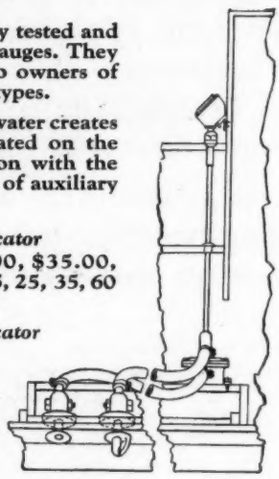

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the first tangible evidence of the outside world since leaving the Race. *Nike* rushed down into the hollow, the bell swung alongside in all its reality of metal lattice work and red paint, and its official number, "2." We could have kissed it or crowned it with myrtle, but we refrained. Our course was laid for the harbor entrance, while the buoy was now rapidly swallowed up in the fog.

"Only a mile and a half from the entrance now!"

Hardly was it said when the tall light at the end of the Breakwater and the spar buoy at the entrance came in sight. We gazed a moment in astonishment.

"Say! I thought you said a mile and a half —"

"I did, I don't see how —"

"You dunderhead, you measured it on the yard scale!"

"I must have. I'm awfully sorry."

We were too happy even verbally to castigate the Mate further. There gleamed the breakwater, projecting from a wall of fog. We passed behind it; *Nike*, entering upon smooth water, raced ahead toward the narrow opening in the dimly revealed island. The inner breakwater light bore south of us at exactly 5.13, and we were in.

The rest happened in a roseate daze. We noticed that *Malabar* and *Senta* were not yet in; we took in our jib, and came to anchor; we waked the committee to give them our time, and in so doing lost our megaphone overboard, and then turned in without any knowledge as to how or when we did these things. All we were conscious of was a feeling of joy for the experience we had just undergone. We felt that we had never experienced real seafaring until now, and we were too happy to mind having been cheated of it heretofore.

When we set off for Newport two hours later, we were already discussing next year's Block Island Race.

The Development of the Express Diesel Yacht

(*Continued from page 44*)

give way to the more seaworthy, sharp transom and cruiser types, but with these changes of appearance nothing will be lost in comfort, strength, or seaworthy qualities.

A forerunner in the development of this new type is shown on page 86 of this issue in the plans and profile of the new 154-foot *Avalanche*, designed by the writer, and now in process of construction. While this boat has a low, rakish stream-line appearance, no sacrifice has been made in strength or seaworthiness for speed. In reality, she will be a very substantial seagoing hull, constructed to the highest classification of the American Bureau of Shipping, with generous beam, full midship body and ends nicely moulded to a clean entrance and sharp transom. Advantage has been taken of all possible water line length for the over all dimensions to give the most easily driven hull possible. The power plant will be a pair of six-cylinder, four-cycle, air-injection Diesel engines, developing 600 horse power each, at 450 revolutions per minute, which will drive the yacht 19 miles per hour. Fuel oil and fresh water tanks built into the hull will give a cruising radius of 3,500 miles at a fast cruising speed of 15 knots, or easily sufficient to cross the Atlantic. Complete Diesel auxiliaries will complete the engine room equipment, with gasoline only required for the small boat equipment, as both the galley range and hot water heating plant will use the fuel oil.

The express type of Diesel yacht is coming into the field, not by the sacrifice of any of the good qualities of its antecedents, but through advancement in the development of the Diesel engine and the refinement of hull design. Today, it is possible by cutting down hull weights and using light-weight high-powered engines, to build a 150-foot, 21-knot boat, or one even faster, with an extreme design for speed; but I believe that in the future faster Diesel yachts will be worked out along sensible, seaworthy lines, and of sturdy construction.

Sure She Steps! 32 Miles an Hour . . . with All the Comforts of a Home

You won't find a keener craft to summer aboard than this 39-foot genuine mahogany Robinson Seagull ▾ Plenty of speed, a well-bred appearance, gracefull riding form and lusty performance ▾ A cabin interior that is spacious, comfortable and restfull ▾ Four pullman berths, two leather upholstered driving seats, galley and toilet each contributes to the utmost owner comfort aboard-ship ▾ A large after cockpit serves as a glorious vantage point of indescribable charm ▾ For cruising, commuting, or those intimate trips where a few friends can be graciously entertained the Seagull is without a counterpart.

▾ ▾ ▾

39-ft. Seagull Sedan Cruiser, Hall-Scott or Sterling Powered—$13,200 to $14,300; 42-ft. Twin Screw Commuter, $22,500; 38-ft. Red Arrow Day Cruiser, Optional Twin Screw Power, $12,800. *Represented by* A. C. F. Salons, 217 W. 57th St., New York City; 500 East Jefferson Ave., Detroit and S. Clyde Kyle, Rialto Bldg., San Francisco; Walter Moreton, 1043 Commonwealth Ave., Boston; Kimball Marine Corporation, 29 Wacker Drive, Chicago; R. B. Lechinger, Houston, Texas.

ROBINSON *Seagull*

ROBINSON MARINE CONSTRUCTION CO. ▾ BENTON HARBOR, MICH.

WORLD NEWS STORIES OF THE KOHLER ELECTRIC PLANT—No. 3

"THANK GOD! WE HAVE LIGHTS"

AT ONE o'clock in the morning, March 13, 1928, a crushing wall of water burst the St. Francis dam and sluiced down a defenseless valley. As the power lines crashed, the city of Santa Barbara was plunged into instant pitchy darkness.

At St. Francis Hospital in Santa Barbara a major operation was being performed. Two obstetrical cases were in process. *The lights went out*—and then, after seconds only, though they seemed as long as hours, the lights came on again. The only lights in all that chaos . . .

St. Francis Hospital, a short time before, had installed a Kohler Electric Plant for emergency use. It was connected to start *automatically* whenever the regular city current failed. When the St. Francis dam broke, the Kohler Electric Plant was ready.

Yachts use Kohler Electricity

Many hospitals—and many theatres, too—have put in Kohler Electric Plants as emergency equipment, impressed by the very remarkable trustworthiness that these capable machines have shown in every kind of service.

No less noteworthy is the preference won by these plants among yachtsmen. There are marine models which supply 110-volt current without storage batteries, or with supplementary 32-volt current from a starting-lighting battery; or 32-volt current alone for battery systems. Mail the coupon for detailed information.

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Gentlemen: Please send the Kohler Electric Plant catalogue.

Name..... Street.....

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Use in which interested.....

The Adventures of Howard Blackburn

(*Continued from page 82*)

to the breeze and flags flying at mainpeak and topmast head, she doubtless looked fine. A handsome American ensign, a present to me from the Portuguese of Gloucester, Mass., flew at the mainpeak, and a silk pennant, given to me by my fellow members of the East Gloucester Yacht Club, swung out to the breeze from the topmast truck.

Captain Field, the dock master at Sharpness, in anticipation of my arrival, had hoisted signal flags on the pier head which read, "Welcome to Gloucester." Thus, despite the diminutive proportions of my little sloop, as much honor was accorded her as if she had been a ship of far greater magnitude. This was due, no doubt, to the fact that, tiny though she might be, she had safely crossed the Atlantic Ocean, and came bearing greetings to the ancient Gloucester of old England from her namesake in distant America.

(*To be continued*)

Lessons in Landfalls

(*Continued from page 68*)

been found upon investigation that there was no trouble with the Monhegan Island light on the night of July 22nd–23rd. The keeper visited it at regular intervals and found it working properly. He does report, however, that according to his station records the weather conditions were variable, and it is therefore believed that your failure to observe the light was due to poor visibility on account of atmospheric conditions."

In support of this conclusion are two facts: first, the blurred character of the line of white light visible over the dark mass of Monhegan Island; and, second, the fact that the tree tops on Burnt Island were slightly blurred by a low cloud. Probably a dense cloud lay on the top of Monhegan Island, enveloping the lighthouse, but not hiding the land, and not sufficing to cause the keeper of the fog signal on Manana Island to start his siren. For two or three minutes this cloud lifted enough to disclose the two bright flashes that were seen, but the rest of the time its under surface hung low enough to appear only as a pale blur of light in the immediate vicinity of the lighthouse. Rarely could a worse combination of conditions exist for finding Monhegan, for in a real fog the siren proclaims its presence for four or five miles at least.

Two morals may well be drawn from this incident. One is to beware of low lying clouds when searching for a tall lighthouse; the surface of the water may be free of fog, yet the lighthouse hidden. The other is that a good chance to shoot the sun should not be missed, if the landfall is fifty miles or more away and cloudy weather is impending. The afternoon sight, superfluous though it seemed at the time, may have just sufficed to bring us in sight of the gas buoy. Three miles farther east we should probably have missed both the buoy and Monhegan, and our first opportunity for a landfall might well have been the unbuoyed and inhospitable S.E. Breaker. We should probably have stopped without seeing anything and hove-to till dawn; and during the three hours of waiting the likelihood of fog shutting in before daylight came to reveal our position, would have loomed before us as a large obstacle to the free enjoyment of our early morning watch.

One more incident on this cruise furnished information which may be useful to one who plays with a sextant. In August, during a few days when the *Black Duck* was deserted, the "chronometer," a Kullberg watch, had been allowed to run down. Starting southward from the Maine coast, we set the chronometer by our watches and then

First Fourteen Places in Class C 133 Mile Albany to New York Marathon April 20, 1929

Earl Widegren, winner of last year's Albany to New York Marathon, in which Evinrudes placed 1, 2, 3, 4, 5, 7, 8, 9 and 10.

54 Finished and 21 were Evinrudes!

Place	Boat	Driver	Engine	Class	Time
1	Miss Eastern	J. Dunnell, Boston		D	3:36:40
2	Spirit of Atlanta	J. Herbst, Wilmington		D	3:46:35
3	Oh My	R. Pregenzer, Antioch, Ill		E	3:46:43
4	Whim	B. Flower, Bayville, L. I.	EVINRUDE.	C	3:54:55
5	Miss Shirt	E. H. Patterson	EVINRUDE.	C	3:58:30
6	Short Circuit	R. Warner, Boston		D	3:58:31
7	Baby Tag	T. Graveline, Albany		D	4:01:40
8	Airships	Ralph Oakley, New York		D	4:01:40
9	L. E. Preston	L. E. Preston	EVINRUDE.	C	4:14:00
10	Bozo II	A. H. Gebrath	EVINRUDE.	C	4:15:07
11	Nemo	H. Chapman		E	4:18:16
12	Big Ben	J. Brockley	EVINRUDE.	C	4:18:40
13	Baby Whale	F. Meyers	EVINRUDE.	C	4:22:41
14	Baby Whale	H. C. White	EVINRUDE.	C	4:24:39
15	Cyclone	J. Masterson	EVINRUDE.	C	4:36:00
16	Miss Berkshire	A. Eckert, Jr.		E	4:37:08
17	Baby Whale	J. Pilzer		B	4:37:40
18	Miss Glen Cove	J. H. Gregory	EVINRUDE.	C	4:38:38
19	Non-Capsizable	C. M. Bouvier	EVINRUDE.	C	4:47:17
20	Caw	M. Gaglenlacher	EVINRUDE.	C	4:47:25
21	Carl's Special	C. Mason	EVINRUDE.	C	4:53:00
22	Coal Hod	S. M. Cole		B	4:54:06
23	Brewster Baby Olds	A. V. Rogers	EVINRUDE.	C	4:54:14
24	Rubber Baby	J. E. Wilkinson	EVINRUDE.	C	4:54:22
25	Baby Pirate	W. E. Crawford		B	5:01:02
26	Coca-Cola	R. F. Safford	EVINRUDE.	C	5:04:10
27	Miss New Rochelle	P. G. Thebaud		E	5:04:50
28	Miss Minneford	Captain Snedecks		C	5:05:42
29	Miss Westover	D. W. Brewster		C	5:08:04
30	Brewster Baby Olds	F. M. Herschneider	EVINRUDE.	C	5:13:35
31	Speed Baby	R. Griffin		C	5:16:10
32	Three Star	F. Trach	EVINRUDE.	D	5:17:35
33	Fairchild	J. Wakeman	EVINRUDE.	C	5:20:16
34	Miss Norwalk	N. Faldus		C	5:25:30
35	Lighting	S. Karaz		C	5:31:53
36	Fairchild	G. J. Helde	EVINRUDE.	C	5:31:55
37	Sonny Boy	H. Bedford		C	5:32:40
38	Grouch	R. Laubly		C	5:35:52
39	C. Horse	L. Holzapfel	EVINRUDE.	C	5:38:20
40	N-155	C. N. Jones, Bayonne, N. J.	EVINRUDE.	D	5:38:30
41	Air Speed	A. A. Pringle		D	5:40:52
42	J-27	L. Casten		B	5:44:08
43	Miss Russell II	C. J. Conn		E	5:55:50
44	Baby Mermaid	Frank Gumbus		B	6:02:00
45	Boyd-Martin	P. Games	EVINRUDE.	C	6:03:00
46	Herm	W. J. Martin		B	6:09:45
47	Snappin' Cracker	H. Fawcett		D	6:31:40
48	N-223	D. McVickar		B	6:39:00
49	B-48	R. P. Breeze		C	6:59:45
50	Skiboat	J. H. Wade		C	7:01:20
51	N-182	M. B. Osborn		C	7:06:02
52	Bridgeport	B. Klein		C	7:07:10
53	H. S. Jr.		EVINRUDE.	B	8:14:20
54	Rascal			C	8:30:05

CLASS E, 40 to 50 cu. inches piston displacement; CLASS D, 30 to 40 cu. inches; CLASS C, 20 to 30; CLASS B, 14 to 20.

H. B. Flower and his Evinrude Speeditwin, winner first place 1929 Albany to New York Marathon, Class C.

EVINRUDE motors have never written as glorious a story of reliability, speed, consistency and value as they did during those gruelling 133 miles from Albany to New York.

Twenty-one of the 54 motors of five makes to finish within the time limit were Evinrudes — *that's reliability!*

The first fourteen places in Class C were won by Evinrudes—*that's consistency!*

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◇ ◇ ◇

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EDWARD CLINTON FOGG—*Managing Director*

UNITED HOTELS

proceeded to find out how nearly right we had set it, by means of several strings of sights from positions which could be accurately fixed by cross bearings. Four strings with good horizon, both morning and afternoon, on two successive days, gave the following results: 50, 50, 35, 37 seconds fast, leading to the conclusion that the chronometer was between 40 and 45 seconds fast; it was known to lose about four seconds a day.

On August 13th, we sailed out of Casco Bay, headed for Cape Cod. At 3 P.M. the horizon presented a peculiar condition of mirage — not the kind of spectacular mirage in which boats sail upside down, in fact, not noticeable at all till examined closely. Seen through the sextant telescope, there were two sharply defined horizons, one above the other. This raised an interesting question. In these circumstances, which horizon would you use to find out where you are? We were still in sight of several good landmarks which enabled us to fix our position and put this question to experimental test. The following bearings: Portland Lightship W. by S., Halfway Rock N.W. by N. ⅞ N., east shore of Ragged Island N.E. by N. ½ N., Mark Island N.E. ⅞ N., together with our log reading, sufficed to place us, to within half a mile, in latitude 43° 35′, longitude 69° 57.6′. Two sets of sights were then taken with the upper and lower horizons in alternation; that is, at each setting of the sextant the time of arrival of the sun's lower limb at each horizon in turn was noted. The result showed a consistent difference of 4′ of altitude between the two horizons. A fortunate circumstance gave a preliminary clue to the question as to which horizon was the true one. Portland Lightship was almost under the sun, and it was easy to see that the lower horizon corresponded with her apparent water line. The lightship was so far away that she was certainly beyond the horizon; thus the lower horizon was apparently genuine, although I could not be sure that refraction was not placing the lightship's water line where it did not belong. Working up the sights, I found that the upper horizon gave a chronometer error of 11 seconds fast, while according to the lower horizon it was 35 seconds fast — a very fair agreement with the other sights made with unequivocal horizons.

I do not know whether the result of this observation would often be useful in outwitting a mirage; it may be that optical conditions in the atmosphere frequently render it impossible to tell where the true horizon is. But if I should again see a double horizon like that which appeared in the southwest last August, I should be strongly inclined to pin my faith on the lower one.

Junior Yachtsmen Have Busy Season Ahead

(*Continued from page 56*)

mont Yacht Club has devoted the Tuesday of its race week to a junior regatta. In the first of these 48 boats started, and last year there were 77 — everything from Wee Scots to Six-Metre boats, some borrowed from parents or friends but most of them owned and raced through the season by these same juniors, or their brothers and sisters who were juniors a year or two ago. This year the junior regatta is scheduled for Wednesday, July 24th. There should be nearly 100 boats in this race, and the Junior Y. R. A. plans to hold a second open regatta, on similar lines, at some port on the Sound, between Stamford and Rye, before the summer is over.

Besides the specifically junior events the youngsters on the Sound race their boats in the regular open championships each Saturday and holiday, and are eligible for the championship medals.

The result of all this attention to the youngsters has given the racing fleet a set of junior skippers and crews

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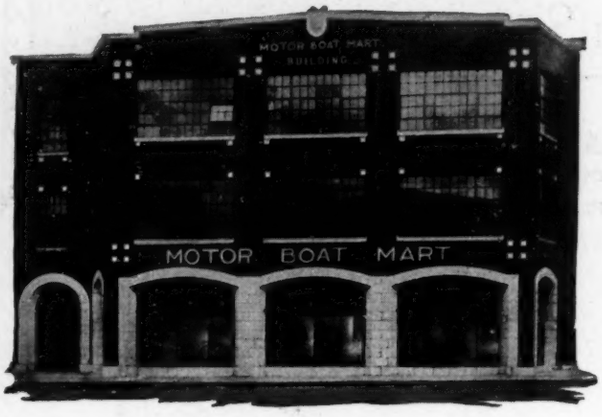

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with whom the older men have to reckon seriously. Take, for instance, young Mike Cudahy, who headed the Beverly Yacht Club crew when it won the Sears Cup last summer. The writer happened to be sailing in W. B. Bell's 40-footer *Mistral* on the New York Yacht Club's run from Marblehead to the Cape Cod Canal last summer. "Corny" Shields, of Larchmont, recognized as one of the best racing skippers on the Sound, was sailing *Mistral*, and by the time Minot's Light was abeam he had dropped the rest of the "Forties" — all but one — safely astern — some of them hull down. The one that was still ahead of him was *Marilee*, and at her helm, hunched over the wheel like a veteran, his blond thatch covered by a black swordfish cap, was young Mike. A "Forty," in a fresh breeze of wind, is somewhat of a handful for a boy, but Mike handled her, and handled her so well that he kept *Mistral* under his lee all the way from Marblehead Rock to Manomet Point or thereabouts. "Corny" finally got him, but he had to use every trick in a very complete repertoire to do it.

Then there's little Lorna Whittlesey, of Greenwich, than whom a cleverer helmswoman or a more hard-boiled skipper would be hard to find. She has won the women's sailing championship of the country in the series at Cohasset for the past two years and, time and again, sailing various boats, she has come home first ahead of a fleet of the best skippers on the Sound. Twice last summer she won in the hardest fighting class on the Sound, the Interclubs, and she won in plenty of other classes, too.

In the Six-Metre fleet that invaded Europe last summer were two boys who, as juniors in 1927, had frequently shown the way to the Long Island Sound Six-Metre fleet. Each had taken an old boat that was not considered in the top division of the class and made her step. One was young Frank Hekma, who, after winning race after race in *Heron* in 1927, went abroad in her as crew for Bill Swan. The other was Alfred Luders, Jr., who had skippered the old *Hawk* so well the year before that Clinton H. Crane invited him to go abroad last summer as crew and reserve helmsman in *Akaba*, that won the Seawanhaka Cup.

Then there is Bob Reybine, who sails the Star boat *Orion*. In the series last summer that decided Western Long Island Sound's international challenger, he held the lead for a while and threw a terrific scare into George Elder, Jack Robinson, Ed Willis and some of the other Star stars who were busy battling each other when he suddenly popped up from nowhere in particular.

These are only a few. One could name a good many more. And aside from the racing end of the sport, the youngsters shine in cruising as well. Last summer there was a special interclub cruise held on the Sound for the juniors, and they had a "whale of a time" from all accounts. Many of them would rather cruise than race — which appears to some of us to be an indication of excellent taste.

By way of encouraging seamanship and neatness, many clubs put up prizes for the junior who keeps his boat in the best condition, all of which is a valuable part in the training of future yachtsmen, for in these days of power tenders and paid hands to do the sailorizing it must be easy for some of the youngsters to get the idea that the business of sailing a boat begins and ends with the starting and finishing guns of a race.

They take a real interest in all branches of the sport. You find them crawling over boats under construction in the shops and solemnly discussing designs. And at the suggestion of William U. Swan, the Long Island Sound Junior Y. R. A. has offered prizes for the best essay on yachting history written by a junior this year.

All in all, a glance over the junior situation is certainly reassuring, for if they keep on at their present rate they will carry on and increase the present healthy growth of yachting under sail long after sail has disappeared from the seas in commercial and fishing craft.

"Silenced Exhaust without ANY Loss of Power"

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This LOCKWOOD "Silent Chief"

There's a world of pep and power in the new Lockwood "Silent Chief." It is keyed to the "go-get-'em" pace of today. There's nothing slow nor sluggish about it. Ten out of 12 Official American Class B Records for 1928 prove that.

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These new features set the Lockwood "Silent Chief" apart from the crowd. They stamp it a most refined member of the whole Outboard Motor family. They win for it a **preferred** place in the best circles.

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Dee Wite
ALL-MAHOGANY PLEASURE CRAFT

Books for the Yachtsman's Library

(*Continued from page 94*)

At the age of eighteen George Fred became boatsteerer — in whaling parlance, the man who heaves the harpoon. Consequently, there is much in the book which Captain Tilton learned about whales. The reader can get a good slant on the habits of these creatures, and the methods followed in hunting them. The writer has been close enough to the open jaws of a live and interested whale to consider it necessary to jump out of the boat.

The high point in this narrative occurs in the Arctic. George Fred was aboard the *Belvedere*, of which he was later captain. The ship was frozen in off Point Barrow. As a result of that experience, Captain Tilton claims that he is the only man who ever "walked home from a whaling expedition." The tale of that trek around and over Alaska to bring help to the marooned whalers, without sufficient food supply, is one of the most harrowing of tales. Blizzards, open water, mountain passes, lost dogs, frozen feet, and the mercenary qualities of civilized people all lend their share of interest.

Alaska called Captain Tilton many times, once in the days of the gold rush, when he made the voyage with a passenger list of motley and excited gold hunters, ever ready for mutiny.

At the present time this whaleman of a bygone day is "master" of the *Charles W. Morgan*, preserved as a whaling museum in New Bedford.

This book is a fit companion to the *Log of Bob Bartlett*. Although George Fred led a life which ran in more common channels, it was none the less thrilling. The illustrations, including some in color by Harry Neyland, enhance the flavor of the volume.

JAMES G. STONE.

Results of the Albany-New York Outboard Marathon

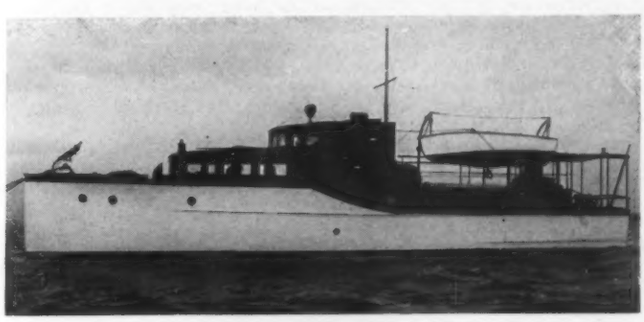
(*Continued from page 57*)

Baby Pirate	W. E. Crawford	Evinrude	Bossert	5:01:02	25
Miss New-Rochelle	R. F. Safford, Jr.	Caille	Lane Special	5:04:50	27
Miss Minneford	P. G. Thebaud	Caille	Hauptner	5:05:42	28
Miss Westover	Capt. Snedicki	Caille	Pigeon	5:08:04	29
Brewster Baby Olds	D. W. Brewster	Evinrude	Brewster	5:13:35	30
Three Star	R. Griffin	Evinrude	Pigeon	5:17:35	32
Fairchild	P. Troch	Evinrude	Fairchild	5:20:16	33
Lighting	M. Feldus	Caille	Boyd-Martin	5:31:53	35
Fairchild	S. Karasz	Evinrude	Fairchild	5:31:55	36
Sonny Boy	G. J. Heldt	Johnson	Gesswein	5:32:40	37
Crouch	H. Bedford	Caille	Crouch	5:35:52	38
C-Horse	R. Laubly	Evinrude	Cute Craft	5:38:20	39
Air Speed	L. Holzapfel	Evinrude	Home Made	5:40:52	41
Herm	Frank Gumbus	Evinrude	Johnson-Pease	6:09:45	46
Skiboat	D. McVickar	Caille	Skiboat	7:01:20	50
N-182	R. P. Breeze	Caille	Skiboat	7:06:02	51
Bridgeport	J. H. Wade	Johnson	Boyd-Martin	7:07:10	52
Rascal	B. Klein	Evinrude	Porteus	8:30:05	54
		CLASS D			
Miss Eastern	J. Dunnell	Johnson	Ludington	3:36:40	1
Spirit of Atlanta	J. Herbst	Johnson	Herbst	3:48:35	2
Short Circuit	R. Warner	Johnson	Cute Craft	3:58:31	6
Baby Tag	T. Graveline	Johnson	Cute Craft	4:01:40	7
Airships	R. Oakley	Johnson	Airships	4:01:40	8
Speed Baby	F. M. Hershenrider	Elto	Keystone	5:16:10	31
Miss Norwalk	J. Wakeman	Johnson	Sea Sled	5:25:30	34
N-155	H. Herrnstadt	Johnson	Airships	5:38:30	40
J-27	C. N. Jones	Johnson	Non-Capsizable	5:44:08	42
N-223	W. J. Martin	Elto	Thompson	6:39:00	48
		CLASS E			
Oh My IV	R. Pregenzer, Jr.	Elto	Century	3:46:43	3
Nemo	J. Brockley	Elto	Herbst	4:18:16	11
Century Cyclone	J. Masterson	Elto	Century	4:36:00	15
Coca Cola	R. P. Kennedy	Elto	Hooton Thompson	5:04:10	26
Baby Mermaid	L. Kasten	Elto		6:02:00	44

LET us suggest, if you are really interested in a CUMMINS, that you ask the man who owns one, then ask our advice and suggestions with reference to the proposed installation. The many and varying types of boats in which CUMMINS ENGINES are installed furnish us data on installations similar to yours.

There is no obligation

¶ CUMMINS ENGINES invite your challenge to meet your most exacting requirements in motive power.



Fayanne II

¶ CUMMINS DEPENDABILITY is endorsed by installations where dependability is the prime requisite.

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And many more (*List on request*)

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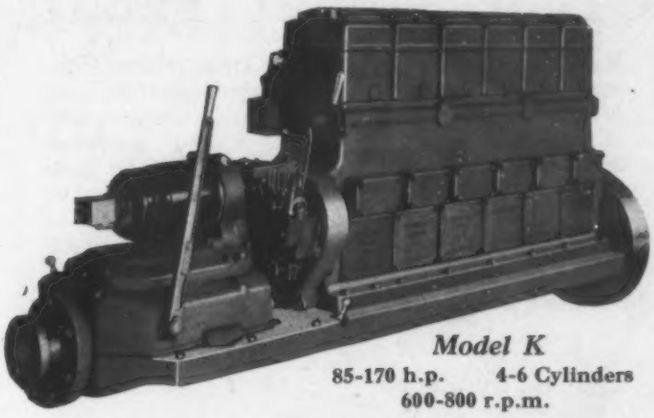


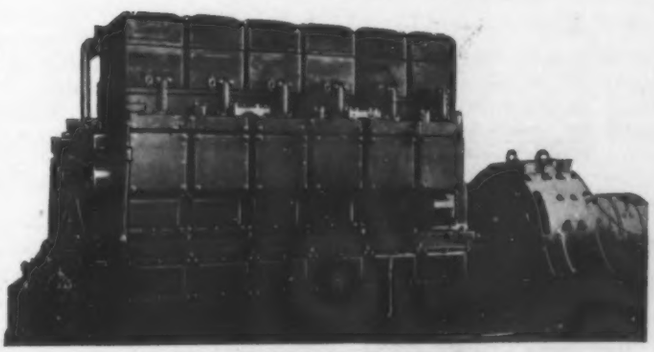
Model K
85-170 h.p. 4-6 Cylinders
600-800 r.p.m.

¶ Don't be misled by high horse-power ratings — find out what wheel the engines turn, and how fast. That is what counts, after all. Compare CUMMINS performance in this respect with many so-called 125 h.p. engines.

¶ *For example* — a 50 h.p. CUMMINS ENGINE drives the FAYANNE II, a 52′ x 12′ 6″ x 3′ 6″, cruiser, nearly 11 miles per hour — only one mile per hour less than a well-known 40-foot stock cruiser equipped with a 125 h.p. gasoline engine.

Countless other comparisons on request, and some real revelations will be in store for you

A Glimpse of the New Model R (Reversible) 500 h.p.



REVOLUTIONARY
Light but strong 10′ 6″ overall
More Details Later

CUMMINS ENGINE COMPANY, Inc. . . . COLUMBUS, INDIANA

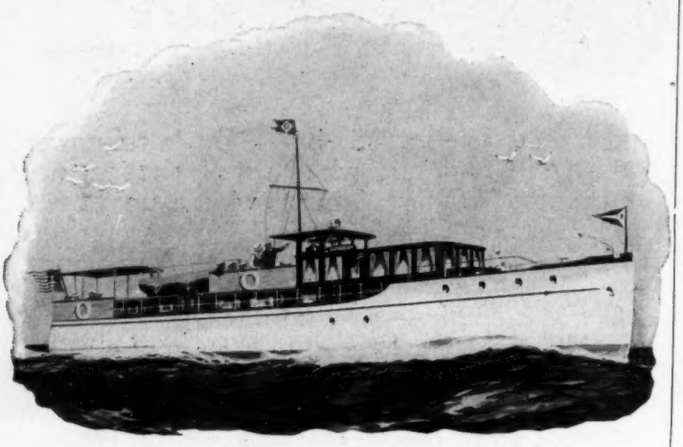
NEW YORK OFFICE: French Building, Fifth Avenue at 45th Street **Telephone: Murray Hill 8772**

Distributors:

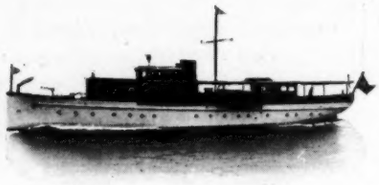
New **York:** Smith-Meeker Eng. Co., 123 Liberty St. (Generators). **Philadelphia:** Smith-Meeker Eng. Co., The Bourse. **Boston:** Diesel Marine Equipment Co., Room 941, 73 Tremont St. **Baltimore:** Mahon & Gall, Inc., Pratt and Gay Sts. **Washington:** Ross L. Fryer, Transportation Bldg. **Harrisburg, Tex.:** Peden Iron & Steel Co., Marine Branch. **Wilmington, Cal.:** Johnson-Blair Co., 1024 E. Anaheim St. **Seattle, Wash.:** S. V. B. Miller, 63 Columbia St. **Guaymas, Sonora, Mex.:** A. A. Lelevier. **Miami:** P. K. Hexter, *Southern Sales Mgr.*, Box 2945; J. N. Vernam, 169 N. W. South River Drive. **Montreal, Canada:** J. Napier Reg., 102 Aubut Ave.

Grebe Diesel Yachts

EXPERIENCE IN DIESEL YACHT DESIGN AND CONSTRUCTION is reflected in the admirable performance of Grebe Diesel yachts. Close touch with the trend of modern motor design and careful study of available engines enables us to select only those power plants of proven merit, avoiding untried or experimental motors. This proper selection of engines coupled with our past experience in designing and building boats of this type assures a thoroughly successful and seaworthy yacht.



SHIAWASSEE II. *62-foot Sunbeam cruiser built for Mr. Calvin P. Bentley of Miami, Florida, and Owosso, Michigan. Powered with two six-cylinder Hill Diesel Engines.*



MARGO. *98'. Powered with two two-hundred horse power Winton Diesel engines. Owned by Mr. B. A. Massee of Chicago.*

RHEA III. *103'. Powered with two 150 horse power Bessemer Diesel engines. Owned by Mr. Charles A. Munroe of East Greenwich, Conn.*

DIESEL POWERED SUNBEAM CRUISERS

Contributing greatly to the popularity of these attractive sixty-two foot cruisers is the fact that they can be secured with twin screw Diesel power. These cruisers ably designed and staunchly built are ideally suited to Diesel power, adding additional economy of operation to those qualities of comfort, strength, seaworthiness and reliable performance which have already distinguished the Sunbeam cruiser and recommended it so highly to discriminating yachtsmen. We will be glad to mail further information on request.

CUSTOM BUILT DIESEL YACHTS

We design and build custom yachts of any size or type from forty to one hundred feet and over and have a number of suggested designs for various sized yachts including the latest type Diesel fast cruisers. Grebe yachts are favorably known for their strength, sturdy construction, seaworthiness, performance, graceful appearance and beautiful finish. We will gladly submit any of these suggested designs as a basis for working out a craft which will fulfill your requirements.

Henry C. Grebe & Co., Inc.

400 North Michigan Ave. CHICAGO

Recent Yacht Sales

Reported by Lloyd's Register of American Yachts

Vixen, 54′ power cruiser. Sold to Russel T. Bailey, of New York City, and renamed *Riffian II.*

Varuna, 59′ sloop. Sold by Est. James B. Ford to Heaton R. Robertson, of New Haven, Conn.

Alida, 95′ power cruiser. Sold by Bertram H. Borden to F. W. Trabold, of New York City.

Dorello III, 98′ schooner. Sold by George L. Batchelder to Ormsby M. Mitchell, Jr., of Rye, N. Y.

Elsart, 57′ power cruiser. Sold by A. E. Williamson to H. G. Danby, of Chadds Ford, Pa.

Alera, New York Y. C. 30-Foot Class. Sold by Howard F. Whitney, Jr., to Harold Palmer, of Scarsdale, N. Y.

Dolphin, 180′ Diesel cruiser. Sold by Mortimer L. Schiff to John W. Hubbard, of Pittsburgh.

Sheerness, 59′ sloop, 46-Rating Class. Sold by Marshall Sheppey to John J. Raskob, of Wilmington, Del. Renamed *Patsy.*

Phryne, New York Y. C. 30-Foot Class. Sold by J. P. Morgan to Sidney Ballou, of New York City.

Taurus, New York Y. C. 30-Foot Class. Sold by W. F. Caesar to H. Wilmer Hanan. *Taurus* was originally built for Mr. Hanan in 1905 under the name of *Nautilus*, which will be restored.

Pellona, 83′ power cruiser. Sold by H. Gordon MacDougall to Charles Piepenbrink, of Cohasset, Mass. To be renamed *Saracen III.*

Ardelle, 20-Rating Class sloop. Sold by Clark Wright to E. W. Giaver and Burt A. Massee, of Chicago.

Elemah, 43′ Stamford schooner. Sold by Egbert Moxham to T. F. Schneider, Jr., of Washington, D. C.

Alert, 140′ power steam cruiser. Sold by Charles A. Stone to Charles M. Hall, of New York City.

Gairlee II, 8-Metre Class sloop. Sold by George W. Gair to Charles A. Thorling, of New York. To be renamed *Rangoon.*

Marlen, 70′ houseboat. Sold by W. T. Grant to Herbert S. Blake, of New York. Renamed *Mendota II.*

Lena H., 80′ power gasoline cruiser. Sold by T. L. Huston to S. G. Ethrington, of New York. Renamed *Rascal.*

Intrepid, 171′ auxiliary schooner. Sold by W. P. Murphy to R. S. Van Horne of Montreal.

Victoria Mary, 135′ power cruiser. Sold by Charles M. Hall to Robert H. McCurdy, of New York.

Heron, 6-Metre Class sloop. Renamed *Emerald* by Cornelius and Paul Shields, of New York.

Isolde, 12-Metre Class cutter. Chartered by H. L. Maxwell to Commodore Vincent Astor.

Viking, 180′ steam yacht. Sold by George F. Baker, Jr., to Myron C. Taylor, of New York. Renamed *Falcon.*

Tartar, 36′ sloop. Sold by John G. Alden to George E. McQuesten, of Boston.

Shada, 96′ power yacht. Sold by Mrs. Clarissa Chapman to John W. Biggs, of Dorchester, Mass.

Sequoia, 185′ power yacht. Sold by Mrs. Richard Cadwaleder, Jr., to Eugene F. McDonald, Jr., of Chicago, and renamed *Mizpah.*

Mendota, 62′ power cruiser. Sold by Herbert S. Blake to Frank B. Stearns, of Cleveland, and renamed *Ginger Dot, Jr.*

Audax, 43′ yawl. Sold by John Proctor Clarke to Sir Guy Standing, of New York City.

Redhead, 6-Metre Class sloop. Sold by Clinton H. Crane to Henry T. Hornidge, of New York City.

Alicia, 40′ schooner. Sold by Miller R. Hutchinson to Hubert C. Morfey, of Bridgeport, Conn.

Bertha Frances, 47′ auxiliary schooner. Sold by Hobart Ford to John Hemphill, of New York City.

Black Hawk, 63′ auxiliary schooner. Sold by Gifford A. Cochran to Richard B. Kahle, of New York City.

Playmate, New York Y. C. 30-Foot Class auxiliary yawl. Sold by Roger E. Stewart to Robert B. Teller, of Bayside, L. I.

Priscilla, 48′ power cruiser. Sold by Gifford K. Simonds to Arthur M. Russell.

Silver Moon, 68′ power cruiser. Sold by John E. Zimmerman to Caleb Fox, Jr., of Philadelphia.

Wanaka, 47′ power cruiser. Sold by K. B. Noble to R. W. Smith, New York City, and renamed *Hi-Sea.*

Adventuress, 74′ power cruiser. Sold by Leslie J. Daniels to Lona M. Simmons, of Coral Gables, Fla.

Debutante, 32′ sloop. Sold by Philip S. Lacy to Sherman Damon of Brookline, Mass., and renamed *Xina.*

Malabar III, 41′ auxiliary schooner. Sold by William Hall to Arthur P. Butler, of Boston.

Nevada, 110′ power yacht. Now owned by R. P. Stevens, of New York City.

Rumpus, 49′ auxiliary schooner. Sold by William P. Farnsworth to James E. Shaw, of New York City.

Silver King, 75′ power cruiser. Sold by Talbert W. Sprague to Samuel L. Fuller, of New York City.

Pythagoras, 52′ power cruiser. Sold by E. Paul duPont to Frank H. Mason, of Wilmington, Del.

Sachem, 90′ power cruiser. Sold by George Whitney to James Crosby Brown, of Philadelphia.

Shipshape Floats

Some people will tinker with makeshift floats made up of second-hand oil barrels and odd pieces of wood; others will insist upon a properly designed and built float that displays some evidences of engineering and care in manufacture. That the latter class is growing is shown by the increase in the number of clubs and owners of waterfront estates who have ordered steel floats, docks and floating breakwaters from Walsh Bugbee Co. Among recent floats installed are those for Thomas Ross of Great Neck, L. I., H. W. McCullough of Stamford, Conn., and the Columbia Y. C. of New York.

Problems Studied

A department for the study of the various problems that may arise in the application of Plastic Wood to boat construction and repair is maintained by its manufacturers, Addison-Leslie Co. All questions sent in by boat owners or boat yards are answered in detail. A 24-page booklet covering the subject is also issued. Recently John B. Winstanley, an engineer experienced in practical boat work, was added to this department for consultation and assistance. His services will be available for builders in the New York district. His headquarters are on City Island.

L. F. Rogers, Gen'l Sales Manager, Boat Division, Dwight Lumber Co., at the wheel of a Dee-Wite outboard runabout.

In Command

It seems like quite a step from the command of a seagoing fighting ship to that of a 16-foot outboard runabout, but that is what has happened to L. F. Rogers. After long service during the war in destroyers, Mr. Rogers was captain of the "Q ship" *Arabia*, one of the few American "mystery ships." After the armistice, he finally reached Detroit and is now General Sales Manager of the Boat Division of the Dwight Lumber Co., manufacturers of the Dee Wite outboard runabout.

Yacht Designers Move Office

New quarters in a new building have been taken by Cox and Stevens, naval architects, at 521 Fifth Ave. The new offices were designed for the company and will give much greater space than those in the old location. Each department will have its own quarters, and the terrace on the Fifth Avenue front will be fitted with a seagoing awning and wicker furniture.

(*Continued on page 141*)

WHY FAMOUS MEN OF THE DAY USE BARBASOL

"I enjoy this par-shave every day"

JOHNNY FARRELL
Nat. Open Golf Champ. 1928

"With perfect ease and comfort, Barbasol makes the face all fairway. It takes strokes off the razor and gives the cleanest, quickest shave."

Johnny Farrell
1928 NATIONAL OPEN GOLF CHAMPION

Famous men are quick to recognize the best things in life. That's why they're famous. That's why mugs, brushes and messy lather are now in limbo. Famous faces are being shaved with Barbasol—the par-shave—every day!

There's nothing like it

You don't brush. You don't lather. You don't rub. You just spread on Barbasol with your fingertips and shave. It smooths the path of the razor that easily clips the beard (the toughest beard) at the skin line. And in a fraction of the usual time you're shaved. Your face looks clean and it will stay that way all day. The skin feels smooth, fresh, exhilarated. For Barbasol is a cooling, healing, refreshing lotion as well as the modern vehicle for shaving.

Your Face Says "Yes"

Tomorrow morning step into the bathroom with a tube of Barbasol. Do this: 1: Wash the face (leave it wet). 2: Spread on Barbasol (don't rub). 3: Shave—dry the face.

In three quick steps that take about as many minutes, you're shaved. Your face feels smooth and cool. And it looks as good as it feels. *It's the par-shave.*

Today—step up to the nearest drug counter and speak up. One tube of Barbasol. Two sizes, 35¢ and 65¢. The Barbasol Co., Indianapolis, Ind.

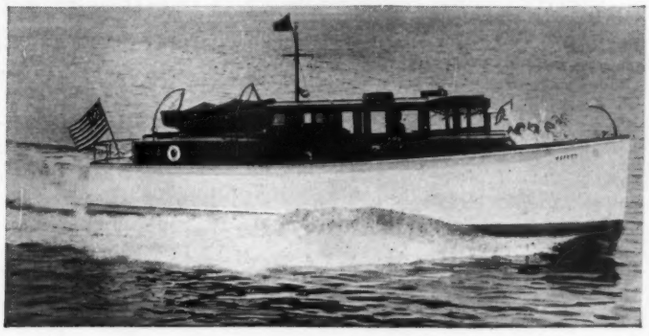
Women Like Their Men young looking, bright and keenly fresh looking. Men like to be this way too. New Barbasol Skin Freshener cools, revives, freshens. Douse it on the face (after shaving) whenever tired. Nothing better... you'll agree!

Barbasol
For Modern Shaving
No brushing—No lathering—No rubbing

Post Yourself on the **OUTSTANDING ADVANTAGES** *of these Two Models*

The Fairform Flyer "45"

TWIN SCREW
"200" Kermath Powered



If you seek individuality — a new degree of super-dependability and fine performance for your cruiser or commuter needs — by all means investigate the real advantages of design, speeds and value represented by the two new 45-foot Fairform Flyer models. One a cruiser, the other a commuter — both twin powered with Kermath "200s" to provide 25 to 30 miles per hour. Judicious space apportionment — the inclusion of every cruising luxury and necessity — handsome fittings to match the mood and kindle the eye, and riding buoyancy without a parallel. The commuter will carry a party of 20 — the cruiser has sleeping accommodations for 7. Why not write for all the details? We will deliver to New York by water. Here's rare boat value for you!

Fairform 45′ Cruiser	Fairform 45′ Commuter
$17,500	$16,000

HUCKINS YACHT CORPORATION
Jacksonville Florida

Briquettes Available

Many seagoing cooks have recommended the use of Ford charcoal briquettes for the galley as they make a quick, hot fire and are cleanly in service. Charles Schaeffer & Son, eastern distributors of this handy fuel, announce that these briquettes may be obtained from Adrian Smith and Mr. Burkhardt on City Island, N. Y.

In Larger Quarters

The eastern district offices of the Winton Engine Co. have been moved to larger quarters at 10 East 40th St.

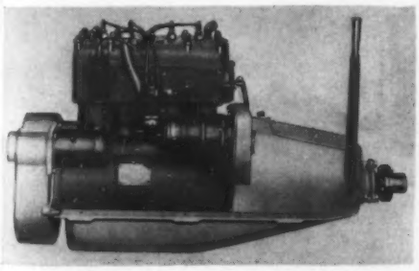
Under the direction of A. C. Griese, vice-president in charge of the eastern district, the various departments will operate to provide yachtsmen with ready facilities for consultation on marine engine installation problems and for immediate supply of parts for all Winton power units now in use.

Increased Production

The demand for Fairchild outboards has made necessary the opening of an additional plant in Philadelphia where an intensified production program is already in force. At this plant the majority of the Fairchild runabouts will be built, although something over 100 racing boats will also be constructed there.

All of the Fairchild *Voyageur* cruisers are now being built in Long Island as well as a few of the racing craft. In this way deliveries of the boats can be made practically 24 hours from receipt of order. Promptness of delivery is one of the Fairchild boasts.

Although indications point to an active racing season for Fairchild, the great proportion of the boats sold will be of the family runabout and cruiser types.



The new Falcon "40" four-cylinder motor.

Two New Falcons

Meeting the demand for a larger motor with the same characteristics as the Falcon "15," the U. S. Motors Corporation announces the Falcon "40" and the Falcon "50."

The Falcon "40" is a four-cylinder 3⅛" by 4¾" engine of 146 cu. in. piston displacement. It is rated 20 h.p. at 1,050 r.p.m., 30 at 1,550, and 40 at 2,300. It will run consistently at 4,000, developing 45 h.p. It has dynamically balanced three bearing crankshaft 2⅜" diameter, and lubrication is forced feed. Both oil and water pumps are accessible and easily dismounted. Timing gears are driven by silent chain, though herringbone gears may be furnished at an extra cost if desired. The motor is 40¾" long over all and weighs 424 lbs. Standard equipment includes electric starter and generator, aluminum base and cover.

The Falcon "50" will, it is stated, be ready for delivery this month. It is a six, 3⅛" by 3⅞", 178 cu. in. piston displacement. Its guaranteed 50 h.p. is developed at 3,000 r.p.m. The dynamically balanced crankshaft is heavy and is supported by seven bearings. The weight of the motor is 515 lbs. and its over all length 50¾".

White teeth may hide this bitter truth

NOBODY'S IMMUNE*

*Thinking all is well when teeth are white
4 out of 5 surrender to the disease-of-neglect

IF you would enjoy health and preserve your teeth don't let appearances deceive you. See your dentist at least once every six months. Have him examine teeth and gums and correct any faults. And start brushing gums vigorously when you brush your teeth, using the dentifrice that helps to firm gums and keep them sound, thus safeguarding them against disease.

Forhan's is such a dentifrice.

Such a simple regime will bring you peace-of-mind. It will protect you. For such diseases as Pyorrhea ignore teeth and launch an attack on neglected gums. If contracted, only expert dental treatment of long duration can stem their advance. They ravage health and often cause loss of teeth. And Pyorrhea alone takes 4 persons out of 5 after forty and thousands younger as its victims.

You will like Forhan's. Its taste is refreshing, cleansing. After using it morning and night for a few weeks you will see an improvement in the appearance of your gums. For this dentifrice helps to firm them and keep them sound. In addition, without the use of harsh abrasives, Forhan's cleans teeth and helps to protect them from decay.

Start brushing teeth and gums with Forhan's today. Teach your children this good habit which will protect their health in the years to come. Get a tube from your druggist. Two sizes, 35c and 60c. Forhan Company, New York.

Forhan's for the Gums is far more than an ordinary toothpaste. It is the formula of R. J. Forhan, D. D. S. It is compounded with Forhan's Pyorrhea Liquid used by dentists everywhere. You will find this dentifrice especially effective as a gum massage if the directions that come with each tube are followed closely. It's good for the teeth. It's good for the gums.

Forhan's

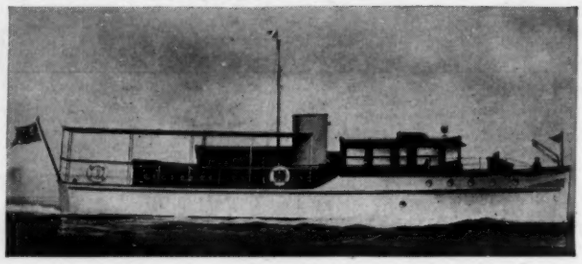
FOR THE GUMS

YOUR TEETH ARE ONLY AS HEALTHY AS YOUR GUMS

TOWNSEND

An Unusual Fifty-Foot Diesel Cruiser

(TWIN SCREW)



WHEN we say the Townsend fifty-foot twin-screw Diesel cruiser is an unusual craft we don't mean it is tricky or freakish. But we do claim that for comfort and livableness afloat it is far ahead of any craft of equal size and that for seaworthiness and smooth riding it compares favorably with Diesel yachts of over one hundred feet in length. Furthermore, being powered with two six-cylinder 75 h.p. Hill Diesel Engines, its operation cost is reduced to one third that of gasoline power; its cruising radius is 800 to 1000 miles at a speed of 14 to 16 miles per hour; and finally there is no fire hazard.

The Townsend has two double staterooms accommodating six in owner's party. An enclosed deckhouse which makes an excellent lounge or dining saloon. The canopy covered after deck is large enough for teas, dancing or fishing parties. The culinary department is equipped for the preparation of full course dinners. It is one-man operated from centralized controls on bridge. Should owner care to carry a crew, quarters are provided for two.

Write today for full particulars

TOWNSEND BOATBUILDING & ENGINE CO.

1418 Packard Building, Philadelphia, Pa.

Plant: Fairhaven, Mass.

Yachtsmen All!

It doesn't matter whether your cruising is done in a sleek express cruiser or in a rambling outboard. Your boat rates with the Commodore's if your equipment is right.

Most outboards are sold with only a minimum of equipment. Be water-wise, and outfit your craft with the fittings necessary for comfortable travel. A few dollars invested now will more than repay you by the season's end.

Send for our Marine Catalog. Everything you are looking for is in it . . . and a host of new ideas as well.

Established 1840

GEO·B·CARPENTER & CO.

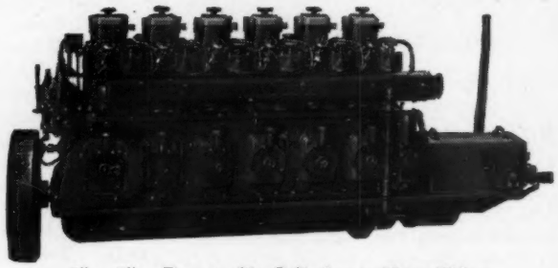
Marine Supplies *Sailmakers and Riggers*

202 W. Austin Avenue, Chicago

HILL-DIESEL

PUMP INJECTION TYPE

No smoke or fumes — They burn the fuel clean



5″ x 7″ — Two to Six Cylinders — 20 to 75 h.p.
6″ x 10″ — Four and Six Cylinders — 50 to 120 h.p.

These Engines incorporate many points of advantage such as: Comparatively low fuel injection pressure. Complete absence of small orifice. Extremely simple and durable fuel injection pump. Ability to throttle to low speed and to run continuously.

— Fully described in Bulletin No. 60 —

HILL DIESEL ENGINE COMPANY

LANSING, MICHIGAN

Builders of Internal Combustion Engines since 1899

Representatives:

John A. Hense, 51 East 42nd St., New York City
George O. Olsen, 88 Broad St., Boston, Mass.
Townsend Boat & Engine Co., Packard Bldg., Phila., Pa.
Llewellyn Machinery Corp., Miami, Florida
Belle Isle Boat & Engine Co., Detroit, Mich.
King Knight Co., Balboa Bldg., San Francisco, Calif.
Fellows & Stewart, Wilmington, Calif.